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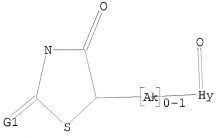
* * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:24:53 ON 31 JUL 2009

=> file reg

=> d l4
L4 HAS NO ANSWERS
L4 STR




G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l4 full
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FULL SCREEN SEARCH COMPLETED - 164889 TO ITERATE

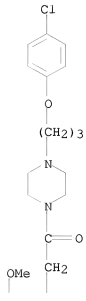
100.0% PROCESSED 164889 ITERATIONS 1351 ANSWERS
SEARCH TIME: 00.00.03

L5 1351 SEA SSS FUL L4

=> d scan

L5 1351 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN 2,4-Thiazolidinedione, 5-[[1-[2-[4-[3-(4-chlorophenoxy)propyl]-1-piperazinyl]-2-oxoethyl]-1,2,3,4-tetrahydro-8-methoxy-2-oxo-5-quinolinyl]methyl]-
MF C29 H33 Cl N4 O6 S

PAGE 1-A



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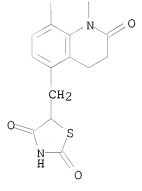

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> file ca

=> d his

(FILE 'HOME' ENTERED AT 10:24:53 ON 31 JUL 2009)

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     FILE 'REGISTRY' ENTERED AT 10:25:02 ON 31 JUL 2009
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L2            1 S L1 SAM
L3           15 S L1 FULL
L4              STRUCTURE UPLOADED
L5         1351 S L4 FULL

     FILE 'CA' ENTERED AT 10:28:16 ON 31 JUL 2009

=> s l5
L6          59 L5

=> d ibib abs fhitstr 1-59

L6   ANSWER 1 OF 59  CA  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         150:423129  CA
TITLE:                    Synthesis of amides of 2,4-dioxothiazolidin-5-yl
                          acetic acid with 1,2,4-triazole substituents
AUTHOR(S):                Trotsko, Nazar; Dobosz, Maria; Chodkowska, Anna;
                          Jagiello-Wojtowicz, Ewa
CORPORATE SOURCE:         Department of Organic Chemistry, Medical University,
                          Lublin, 20-081, Pol.
SOURCE:                   Acta Poloniae Pharmaceutica (2008), 65(2), 217-221
                          CODEN: APPHAX; ISSN: 0001-6837
PUBLISHER:                Polish Pharmaceutical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
GI
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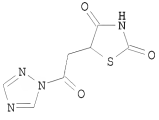


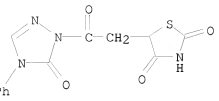
I

AB (2,4-Dioxothiazolidin-5-yl)acetyl chloride was used in alkylations of 1,2,4-triazole, 4-phenyl-1,2,4-triazolin-5-one, and 4-phenyl-1,2,4-triazolin-5-thione to yield the corresponding triazolyl and triazolinyl amides. Two of the title compds. were tested on the central nervous system (CNS) of mice. Compound I was shown to be the most active.

IT 1140826-17-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dioxo(thiazolidinyl)acetic acid amides with triazole substituents as central nervous system agents)

RN 1140826-17-0 CA

CN 2,4-Thiazolidinedione, 5-[2-(4,5-dihydro-5-oxo-4-phenyl-1H-1,2,4-triazol-1-yl)-2-oxoethyl]- (CA INDEX NAME)

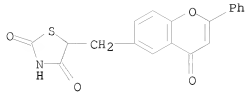


REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:215104 CA
TITLE: In vitro aldose reductase inhibitory activity of some flavonyl-2,4-thiazolidinediones
AUTHOR(S): Das-Evcimen, Net; Bozdag-Dundar, Oya; Sarikaya, Mutlu; Ertan, Rahmiye
CORPORATE SOURCE: Department of Biochemistry, Faculty of Pharmacy, Ankara University, Ankara, Turk.
SOURCE: Journal of Enzyme Inhibition and Medicinal Chemistry (2008), 23(3), 297-301
CODEN: JEIMAZ; ISSN: 1475-6366
PUBLISHER: Informa Healthcare
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aldose reductase (AR) is implicated to play a critical role in diabetes and cardiovascular complications because of the reaction it catalyzes. AR enzyme appears to be the key factor in the reduction of glucose to sorbitol. Synthesis and accumulation of sorbitol in cells due to AR activity is the main cause of diabetic complications, such as diabetic cataract, retinopathy, neuropathy and nephropathy. Aldose reductase inhibitors have been found to prevent sorbitol accumulation in tissues. Numerous compds. have been prepared to improve the pharmacol. profile of inhibition of aldose reductase enzyme. In this study, seventeen flavonyl-2,4-thiazolidinediones (flavonyl-2,4-TZD) (Ia-e, IIa-e and IIIa-g) were tested for their ability to inhibit rat kidney AR. Compound Ib showed the highest inhibitory activity (88.69±1.46%) whereas Ia, IIa, IIIa, IIIb also showed significant inhibitory activity (49.26±2.85, 67.29±1.09, 71.11±1.95, 64.86±1.21%, resp.).

IT 380498-64-6
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aldose reductase inhibitory activity of some flavonyl-thiazolidinediones)
RN 380498-64-6 CA
CN 2,4-Thiazolidinedione, 5-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)methyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:183460 CA
TITLE: Carbostyril compound NF-κB inhibitors, and their therapeutic use
INVENTOR(S): Ishiyama, Hironobu; Ohta, Kazuhide
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 181 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008010601 | A1 | 20080124 | WO 2007-JP64613 | 20070718 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| AU 2007276071 | A1 | 20080124 | AU 2007-276071 | 20070718 |
| CA 2657114 | A1 | 20080124 | CA 2007-2657114 | 20070718 |
| EP 2043644 | A1 | 20090408 | EP 2007-768467 | 20070718 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS | | | | |
| NO 2009000051 | A | 20090217 | NO 2009-51 | 20090106 |
| IN 2009DN00170 | A | 20090619 | IN 2009-DN170 | 20090109 |
| CN 101489555 | A | 20090722 | CN 2007-80027179 | 20090119 |
| KR 2009033900 | A | 20090406 | KR 2009-703428 | 20090219 |

PRIORITY APPLN. INFO.:
JP 2006-198116 A 20060720
JP 2006-285169 A 20061019
WO 2007-JP64613 W 20070718

OTHER SOURCE(S): MARPAT 148:183460

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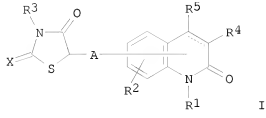


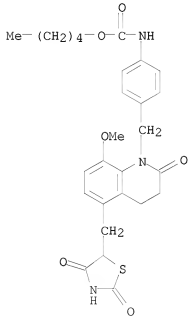
I

AB The invention provides NF-κB inhibitors. The NF- κB inhibitors of the invention contain a carbostyril compound I (A = bond, lower alkylene , lower alkylidene; X = O, S; R4, R5 = H; bond between 3 and 4 positions of carbostyril skeleton is single bond or double bond; R1 = H, etc; R2 = H, etc; R3 = H, etc.), or a salt thereof. The compds. of the invention are useful for the prevention and treatment of NF-κB-associated diseases.

IT 882007-17-2
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbostyril compound NF-κB inhibitors, and therapeutic use)

RN 882007-17-2 CA

CN Carbamic acid, N-[4-[[5-[(2,4-dioxo-5-thiazolidinyl)methyl]-3,4-dihydro-8-methoxy-2-oxo-1(2H)-quinolinyl]methyl]phenyl]-, pentyl ester (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:522220 CA
TITLE: Carbostyril compounds and their preparation, pharmaceutical compositions, and their transcription promoting activity of TFF2 for treatment and/or prevention of various diseases
INVENTOR(S): Kuroda, Takeshi; Yamauchi, Takahito; Shinohara, Tomokazu; Oshima, Kunio; Kitajima, Chiharu; Nagao, Hitoshi; Fukushima, Tae; Tomoyasu, Takahiro; Ishiyama, Hironobu; Ota, Kazuhide; Takano, Masaaki; Sumida, Takumi; Miyamoto, Motoyuki
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 338 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| JP 2007291079 | A | 20071108 | JP 2007-81610 | | 20070327 |
| PRIORITY APPLN. INFO.: | | | JP 2006-84990 | A | 20060327 |

OTHER SOURCE(S): MARPAT 147:522220
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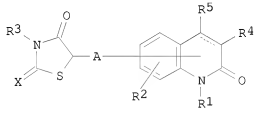
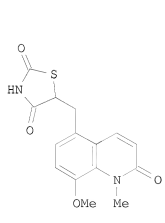


I



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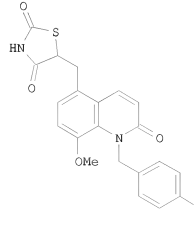


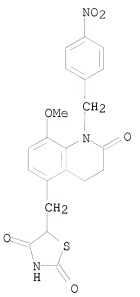
III

AB The invention provides carbostyril compds. represented by formula (I) or salts thereof, and their pharmaceutical compns., prepns. and use for transcription promotion activity of TFF2. The carbostyril compds. or salts thereof, of the invention, induces the production of TFF, and thus are usable for the treatment and/or prevention of disorders such as alimentary tract diseases, oral diseases, upper respiratory tract diseases, respiratory tract diseases, eye diseases, cancers, and wounds. Compds. of formula I [wherein A is a bond, a lower alkylene group, or a lower alkylidene group; X is O or S; the dotted line is a single or a double bond; R4 and R5 are independently H, with the provision that dotted line is a double bond; or R4-R5 may be linked together to form a CH=CH-CH=CH group; R1 is H, lower alkyl, (un)substituted Ph lower alkyl, cycloalkyl lower alkyl, phenoxy lower alkyl, naphthyl lower alkyl, lower alkoxy lower alkyl, carboxyl lower alkyl, lower alkoxycarbonyl lower alkyl, (un)substituted pyridyl lower alkyl, cyano lower alkyl, etc.; R2 is H, lower alkoxy, lower alkyl, carboxy lower alkyl, lower alkoxycarbonyl lower alkoxy, HO, (un)substituted Ph lower alkoxy, (un)substituted piperidinyl(oxy) lower alkyl, lower alkenyloxy, (un)substituted pyridyl lower alkoxy, lower alkynyloxy, Ph lower alkenyloxy, Ph lower alkynyloxy, (un)substituted furyl lower alkoxy, (un)substituted oxadiazolyl lower alkyl, or (un)substituted thiazolyl lower alkoxy, etc.; R3 is H, lower (HO-substituted) alkyl, cycloalkyl lower alkyl, carboxyl lower alkyl, lower alkoxycarbonyl lower alkyl, (un)substituted Ph lower alkyl, naphthyl lower alkyl, (un)substituted furyl lower alkyl, (un)substituted thiazolyl lower alkyl, (un)substituted tetrazolyl, or (un)substituted benzothienyl, etc.; and their pharmaceutically acceptable salts] are claimed. Example compound (II) was prepared by heterocyclization of 2-chloro-3-(8-methoxy-1-methyl-2-oxo-1,2-dihydroquinolin-5-yl)propionic acid with thiourea. All the invention compds. were evaluated for the transcription promoting activity of hTFF2. From the assay, it was determined that some invention compds., including compound (III), showed TFF2 production activity of 1000% or higher at a test compound concentration of 10-6M concentration Some invention compds. showed a TFF2 production promoting activity of 300% or higher at a test compound concentration is less than 10-5M and preferably more than 10-6M. Example compound III and a few other compds. showed >20% healing ratio of the ulcerated area, which indicated that these compds. may be effective in preventing and/or treating mucosal injury.

IT 882007-14-9P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate and intermediate; preparation of carbostyril compds. and their transcription promoting activity of TFF2 for treatment and/or prevention of various diseases)

RN 882007-14-9 CA

CN 2,4-Thiazolidinedione, 5-[[1,2,3,4-tetrahydro-8-methoxy-1-[(4-nitrophenyl)methyl]-2-oxo-5-quinolinyl]methyl]- (CA INDEX NAME)



L6 ANSWER 5 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:385852 CA
TITLE: Preparation of quinolone derivatives as P2Y12-inhibitors and platelet aggregation inhibitors
INVENTOR(S): Koga, Yuji; Okuda, Takao; Watanuki, Susumu; Kamikubo, Takashi; Hirayama, Fukushi; Moritomo, Hiroyuki; Fujiyasu, Jiro; Kageyama, Michihito; Uemura, Toshio; Takasaki, Jun
PATENT ASSIGNEE(S): Astellas Pharma Inc., Japan
SOURCE: PCT Int. Appl., 136pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2007105751 | A1 | 20070920 | WO 2007-JP55040 | 20070314 |
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| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| AU 2007225678 | A1 | 20070920 | AU 2007-225678 | 20070314 |
| CA 2645711 | A1 | 20070920 | CA 2007-2645711 | 20070314 |

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| EP 1995240 | A1 | 20081126 | EP 2007-738511 | | 20070314 |
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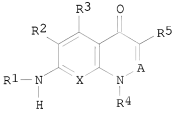
| MX 2008011721 | A | 20081114 | MX 2008-11721 | | 20080912 |
| IN 2008CN04924 | A | 20090313 | IN 2008-CN4924 | | 20080916 |
| CN 101400655 | A | 20090401 | CN 2007-80009148 | | 20080916 |
| NO 2008004319 | A | 20081212 | NO 2008-4319 | | 20081015 |
| KR 2008110818 | A | 20081219 | KR 2008-725134 | | 20081015 |
| PRIORITY APPLN. INFO.: | | | JP 2006-73045 | A | 20060316 |
| | | | WO 2007-JP55040 | W | 20070314 |

OTHER SOURCE(S): MARPAT 147:385852
GI



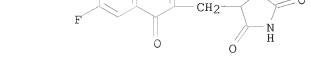
I

AB The title compds. I [R1 = cycloalkyl, alkylenecycloalkyl; the cycloalkyl moiety in R1 may be (un)substituted; R2 = H, halo; R3 = H, halo, O-alkylene-aryl, etc.; R4 = alkyl, haloalkyl, (un)substituted cycloalkyl, etc.; R5 = NO2, CN, alkyl, etc.; X = CH, N; A = CR7, N; R7 = H, alkyl; R4 and R7 may together form (un)substituted alkylene; a proviso is given] are prepared Thus, Et 4-([7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]amino)-4-oxobutanoate was prepared from 3-amino-7-(cyclohexylamino)-1-cyclopentyl-6-fluoroquinolin-4(1H)-one and 4-ethoxy-4-oxobutanoic acid. In an in vitro assay, compds. of this invention at 10 μM gave 64% to 97% inhibition of platelet aggregation.

IT 950497-54-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of quinolone derivs. as P2Y12-inhibitors and platelet aggregation inhibitors)

RN 950497-54-8 CA

CN 2,4-Thiazolidinedione, 5-[[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-1,4-dihydro-4-oxo-3-quinolinyl]methyl]- (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 144:370081 CA
TITLE: Carbostyril compounds and their preparation, pharmaceutical compositions, and their transcription promoting activity of TFF2 for treatment and/or prevention of various diseases
INVENTOR(S): Kuroda, Takeshi; Yamauchi, Takahito; Shinohara, Tomoichi; Oshima, Kunio; Kitajima, Chiharu; Nagao, Hitoshi; Fukushima, Tae; Tomoyasu, Takahiro; Ishiyama, Hironobu; Ohta, Kazuhide; Takano, Masaaki; Sumida, Takumi
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 468 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2006035954 | A1 | 20060406 | WO 2005-JP18217 | 20050926 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
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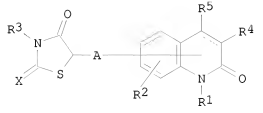
| AU 2005288080 | A1 | 20060406 | AU 2005-288080 | 20050926 |
| CA 2580811 | A1 | 20060406 | CA 2005-2580811 | 20050926 |
| JP 3906471 | B1 | 20070418 | JP 2006-519041 | 20050926 |
| JP 2007512220 | T | 20070517 | | |
| EP 1797082 | A1 | 20070620 | EP 2005-788152 | 20050926 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR | | | | |
| CN 101068810 | A | 20071107 | CN 2005-80037090 | 20050926 |
| BR 2005016219 | A | 20080826 | BR 2005-16219 | 20050926 |
| US 20070179173 | A1 | 20070802 | US 2006-582014 | 20060607 |
| IN 2007DN01824 | A | 20070817 | IN 2007-DN1824 | 20070308 |
| MX 2007003735 | A | 20070423 | MX 2007-3735 | 20070328 |
| KR 2007061902 | A | 20070614 | KR 2007-709483 | 20070426 |
| KR 823414 | B1 | 20080417 | | |
| KR 2007072632 | A | 20070704 | KR 2007-714064 | 20070621 |
| KR 840465 | B1 | 20080620 | | |

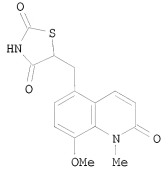
| PRIORITY APPLN. INFO.: | | | |
|---|---|---|---|
| JP 2004-282814 | A | 20040928 | |
| WO 2005-JP18217 | W | 20050926 | |
| KR 2007-709483 | A3 | 20070426 | |

OTHER SOURCE(S): CASREACT 144:370081; MARPAT 144:370081

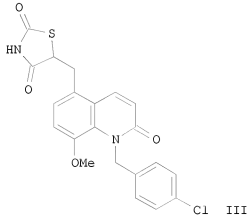
GI



I



II



III

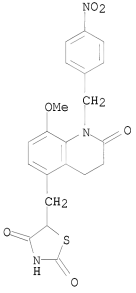
AB The invention provides carbostyril compds. represented by formula I or salts thereof, and their pharmaceutical compns., prepns. and use for transcription promotion activity of TFF2. The carbostyril compds. or salts thereof, of the invention, induces the production of TFF, and thus is usable for the treatment and/or prevention of disorders such as alimentary tract diseases, oral diseases, upper respiratory tract diseases, respiratory tract diseases, eye diseases, cancers, and wounds. Compds. of formula I wherein A is a bond, a lower alkylene group, or a lower alkylidene group; X is O or S; the dotted line is a single or a double bond; R4 and R5 are independently H, with the provision that dotted line is a double bond; or R4-R5 may be linked together to form a CH=CH-CH=CH group; R1 is H, lower alkyl, (un)substituted Ph lower alkyl, cycloalkyl lower alkyl, phenoxy lower alkyl, naphthyl lower alkyl, lower alkoxy lower alkyl, carboxyl lower alkyl, lower alkoxycarbonyl lower alkyl, (un)substituted pyridyl lower alkyl, cyano lower alkyl, etc.; R2 is H, lower alkoxy, lower alkyl, carboxy lower alkyl, lower alkoxycarbonyl lower alkoxy, HO, (un)substituted Ph lower alkoxy, (un)substituted piperidinyl(oxy) lower alkyl, lower alkenyloxy, (un)substituted pyridyl lower alkoxy, lower alkynyloxy, Ph lower alkenyloxy, Ph lower alkynyloxy, (un)substituted furyl lower alkoxy, (un)substituted oxadiazolyl lower alkyl, or (un)substituted thiazolyl lower alkoxy, etc.; R3 is H, lower (HO-substituted) alkyl, cycloalkyl lower alkyl, carboxyl lower alkyl, lower alkoxycarbonyl lower alkyl, (un)substituted Ph lower alkyl, naphthyl lower alkyl, (un)substituted furyl lower alkyl, (un)substituted thiazolyl

lower alkyl, (un)substituted tetrazolyl, or (un)substituted benzothienyl, etc.; and their pharmaceutically acceptable salts are claimed. Example compound II was prepared by heterocyclization of 2-chloro-3-(8-methoxy-1-methyl-2-oxo-1,2-dihydroquinolin-5-yl)propionic acid with thiourea. All the invention compds. were evaluated for the transcription promoting activity of hTFF2. From the assay, it was determined that some invention compds., including compound III, showed TFF2 production activity of 1000% or higher at a test compound concentration of 10-6M concentration Some invention compds. showed a TFF2 production promoting activity of 300% or higher at a test compound concentration is less than 10-5M and preferably more than 10-6M. Example compound III and a few other compds. showed >20% healing ratio of the ulcerated area, which indicated that these compds. may be effective in preventing and/or treating mucosal injury.

IT 882007-14-9P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate and intermediate; preparation of carbostyril compds. and their transcription promoting activity of TFF2 for treatment and/or prevention of various diseases)

RN 882007-14-9 CA

CN 2,4-Thiazolidinedione, 5-[[1,2,3,4-tetrahydro-8-methoxy-1-[(4-nitrophenyl)methyl]-2-oxo-5-quinolinyl]methyl]- (CA INDEX NAME)




OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 144:311959 CA

TITLE: Organic reactions in ionic liquids. Ionic liquid-accelerated facile synthesis of

3-alkyl-2,4-thiazolidinediones

AUTHOR(S): Yang, De-Hong; Yang, Ben-Yong; Chen, Zhen-Chu; Chen, Song-Ying; Zheng, Qin-Guo

CORPORATE SOURCE: Department of Materials and Chemistry, Zhongyuan University of Technology, Zhengzhou, 450007, Peop. Rep. China

SOURCE: Journal of Chemical Research (2005), (8), 492-494
CODEN: JCROA4

PUBLISHER: Science Reviews

DOCUMENT TYPE: Journal

LANGUAGE: English

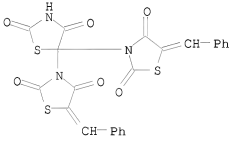
OTHER SOURCE(S): CASREACT 144:311959

AB The room temperature ionic liquid [bmim]PF6 is a new green solvent for the N-alkylation of 2,4-thiazolidinones. Significant rate enhancement and improved yields were observed

IT 880090-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(ionic liquid-accelerated preparation of 3-alkyl-2,4-thiazolidinediones by N-alkylation of 2,4-thiazolidinones with alkyl halides)

RN 880090-57-3 CA

CN [3,5':5',3''-Terthiazolidine]-2,2',2'',4,4',4''-hexone, 5,5''-bis(phenylmethylene)- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 141:301422 CA

TITLE: Preparation of heterocyclic ligands for acid-stabilized insulin analogs

INVENTOR(S): Ostergaard, Soren; Olsen, Helle Birk; Kaarsholm, Niels C.; Madsen, Peter; Jakobsen, Palle; Ludvigsen, Svend; Schluckebier, Gerd; Steensgaard, Dorte Bjerre; Petersen, Anders Klarskov

PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.

SOURCE: PCT Int. Appl., 473 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| WO 2004080480 | A1 | 20040923 | WO 2004-DK158 | | 20040311 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | | |
| AU 2004218808 | A1 | 20040923 | AU 2004-218808 | | 20040311 |
| CA 2522818 | A1 | 20040923 | CA 2004-2522818 | | 20040311 |
| EP 1610812 | A1 | 20060104 | EP 2004-719368 | | 20040311 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK | | | | | |
| BR 2004008229 | A | 20060221 | BR 2004-8229 | | 20040311 |
| CN 1787833 | A | 20060614 | CN 2004-80012690 | | 20040311 |
| JP 2007523842 | T | 20070823 | JP 2006-504320 | | 20040311 |
| ZA 2005007007 | A | 20061025 | ZA 2005-7007 | | 20050901 |
| US 20060069013 | A1 | 20060330 | US 2005-227760 | | 20050912 |
| NO 2005004555 | A | 20051117 | NO 2005-4555 | | 20051004 |
| PRIORITY APPLN. INFO.: | | | DK 2003-365 | A | 20030311 |
| | | | US 2003-455400P | P | 20030317 |
| | | | WO 2004-DK158 | A | 20040311 |

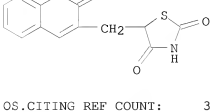
OTHER SOURCE(S): MARPAT 141:301422

AB Novel ligands for the His-B10 Zn2+ sites of the R-state insulin hexamer that are capable of prolonging the action of insulin prepns. are disclosed. A mixture of 4-aminobenzonitrile, sodium azide and ammonium chloride in DMF was heated at 125° for 16 h. The cooled mixture was filtered and the filtrate was concentrated to give 5-(4-aminophenyl)-2H-tetrazole. This was used as the ligand for His-B10 Zn2+ sites of the R-state insulin hexamer.

IT 882007-10-5
RL: PRPH (Prophetic)
(Preparation of heterocyclic ligands for acid-stabilized insulin analogs)

RN 882007-10-5 CA

CN 2,4-Thiazolidinedione, 5-[(1,2-dihydro-2-oxo-3-quinolinyl)methyl]- (CA INDEX NAME)



| | | |
|---|---|---|
| OS.CITING REF COUNT: | 3 | THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS) |
| REFERENCE COUNT: | 7 | THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT |

L6 ANSWER 9 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 141:106476 CA
TITLE: Preparation of heterocyclic compounds as ligands for stabilizing insulin compositions
INVENTOR(S): Kaarsholm, Niels Christian; Madsen, Peter; Schlein, Morten; Olsen, Helle Birk; Havelund, Svend; Steensgaard, Dorte Bjerre; Ludvigsen, Svend; Jakobsen, Palle; Petersen, Anders Klarskov; Schluckebier, Gerd
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 432 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004056347 | A2 | 20040708 | WO 2003-DK931 | 20031222 |
| WO 2004056347 | A3 | 20040812 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2003291972 | A1 | 20040714 | AU 2003-291972 | 20031222 |
| EP 1585541 | A2 | 20051019 | EP 2003-767488 | 20031222 |
| EP 1585541 | B1 | 20071114 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| JP 2006516966 | T | 20060713 | JP 2005-502527 | 20031222 |
| AT 378063 | T | 20071115 | AT 2003-767488 | 20031222 |
| ES 2297227 | T3 | 20080501 | ES 2003-767488 | 20031222 |
| US 20050065066 | A1 | 20050324 | US 2004-825995 | 20040416 |

PRIORITY APPLN. INFO.:
DK 2002-1991 A 20021220
US 2003-439382P P 20030110
WO 2003-DK931 W 20031222

OTHER SOURCE(S): MARPAT 141:106476
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

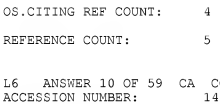
AB The present invention provides pharmaceutical compns. comprising insulin and novel ligands for the His B10 Zn2+ sites of the R-state insulin hexamer. The ligands belong to different subclasses of compds., e.g., benzotriazoles, 3-hydroxy-2-naphthoic acids, salicylic acids, tetrazoles, thiazolidinediones, 5-mercaptotetrazoles, or 4-cyano-1,2,3-triazoles. Methods for preparing the various classes of ligands included amidation, condensation, and coupling reactions. Compds. of the invention I-IX were

evaluated for affinity to the zinc site with Kd values ranging from 3-3,879 nM. Addnl., I-IX were evaluated for retention of fast absorption characteristics of formulations stabilized by addition of ligands and chemical stability of insulin formulations. The resulting prepns. have improved phys. and chemical stability.

IT 882007-10-5
RL: PRPH (Prophetic)
(Preparation of heterocyclic compounds as ligands for stabilizing insulin compositions)

RN 882007-10-5 CA

CN 2,4-Thiazolidinedione, 5-[(1,2-dihydro-2-oxo-3-quinolinyl)methyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 141:923 CA

TITLE: Studies on some glitazones having pyridine as the linker unit

AUTHOR(S): Ramachandran, Uma; Mital, Alka; Bharatam, Prasad V.; Khanna, Smriti; Rao, Poduri Rama; Srinivasan, Krishnamoorthy; Kumar, Rakesh; Chawla, Harmander Pal Singh; Lal Kaul, Chaman; Raichur, Suryaprakash; Chakrabarti, Ranjan

CORPORATE SOURCE: Department of Pharmaceutical Technology, National Institute of Pharmaceutical Education and Research (NIPER), S.A.S. Nagar, 160 062, India

SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(4), 655-662
CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

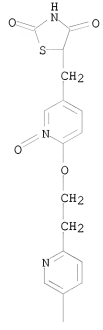
OTHER SOURCE(S): CASREACT 141:923

AB Mol. modeling on various well-known glitazones carrying a pyridine ring instead of benzene ring as the middle linker unit showed conformational rigidity as compared to their parent mols. Blocking the lone pair of electrons on the pyridine N, made them flexible once again. A few representatives of these analogs were synthesized and their efficacy as PPARγ agonists evaluated.

IT 695171-50-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(glitazones having pyridine as the linker unit, their preparation and PPARγ agonist activity)

RN 695171-50-7 CA
CN 2,4-Thiazolidinedione, 5-[[6-[2-(5-ethyl-2-pyridinyl)ethoxy]-1-oxido-3-pyridinyl]methyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

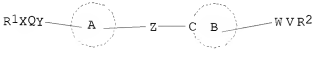
OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 140:287404 CA
TITLE: Preparation of five-membered heterocyclic compounds for treatment of obesity, diabetes, hyperlipidemia, etc.
INVENTOR(S): Momose, Yu; Takakura, Nobuyuki; Maekawa, Tsuyoshi; Odaka, Hiroyuki; Kimura, Hiroyuki
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 442 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004024705 | A1 | 20040325 | WO 2003-JP11511 | 20030909 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| JP 2004123732 | A | 20040422 | JP 2003-316475 | 20030909 |
| AU 2003262023 | A1 | 20040430 | AU 2003-262023 | 20030909 |
| EP 1541564 | A1 | 20050615 | EP 2003-795338 | 20030909 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| US 20060135578 | A1 | 20060622 | US 2005-527426 | 20050310 |
| US 7368578 | B2 | 20080506 | | |
| PRIORITY APPLN. INFO.: | | | JP 2002-264703 A | 20020910 |
| | | | WO 2003-JP11511 W | 20030909 |
| OTHER SOURCE(S): | MARPAT 140:287404 | | | |

GI



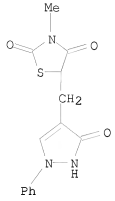

I

AB The title compds. I [R1 is a group derived from an optionally substituted five-membered heterocycle; X, Y and V are each independently oxygen, sulfur, or the like; Q is a divalent hydrocarbon group having 1 to 20 carbon atoms; A is an aromatic ring which may have one to three addnl. substituents; Z is (CH2)nZ1 or Z1(CH2)n (wherein n is an integer of 0 to 8 and Z1 is oxygen, sulfur, or the like); B is a nitrogenous heterocycle which may have one to three addnl. substituents; W is a bond or a divalent hydrocarbon group having 1 to 20 carbon atoms; and R2 is hydrogen, cyano, PO(OR9)(OR10) (wherein R9 and R10 are each independently hydrogen or optionally substituted hydrocarbyl, or R9 and R10 may be united to form an optionally substituted ring), or the like] are prepared In a binding assay for the human PPAR γ1 receptors , compds. of this invention showed IC50 values of 7.4 nM to 7300 nM. Formulations are given.

IT 675148-07-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of five-membered heterocyclic compds. for treatment of obesity, diabetes, hyperlipidemia, etc.)

RN 675148-07-9 CA

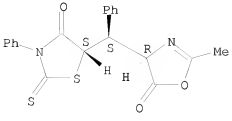
CN 2,4-Thiazolidinedione, 5-[(2,3-dihydro-3-oxo-1-phenyl-1H-pyrazol-4-yl)methyl]-3-methyl- (CA INDEX NAME)




OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

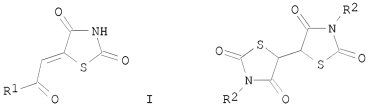
L6 ANSWER 12 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 140:111336 CA
TITLE: Multi-component synthesis of pyran-annulated thiazoles under solvent-free microwave irradiation
AUTHOR(S): Yadav, Lal Dhar S.; Singh, Amrish
CORPORATE SOURCE: Department of Chemistry, University of Allahabad, Allahabad, 211 002, India
SOURCE: Synthesis (2003), (15), 2395-2399
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:111336
AB A three-component one-pot reaction of glycine, acetic anhydride, and 5-arylidenerhodanines yields dihydropyrano[2,3-d]thiazolethiones stereoselectively under microwave irradiation and without solvent.
IT 645611-71-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate in the stereoselective preparation of dihydropyrano[2,3-d]thiazolethiones by three-component solvent-free cyclocondensation reactions of glycine, acetic anhydride, and 5-(arylmethylene)rhodanines under microwave irradiation)
RN 645611-71-8 CA
CN 5(4H)-Oxazolone, 2-methyl-4-[(R)-[(5R)-4-oxo-3-phenyl-2-thioxo-5-thiazolidinyl]phenylmethyl]-, (4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

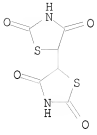


OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

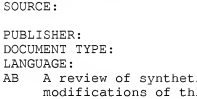
L6 ANSWER 13 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 139:6791 CA
TITLE: Synthesis of potential biologically active substances on the base of 5-carboxymethylidene-2,4-thiazolidinedione
AUTHOR(S): Lesik, R. B.; Zimenkovs'kii, B. S.
CORPORATE SOURCE: L'viv. Derzhavnii Med. Univ., Lvov, Ukraine
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (2002), (4), 64-68
CODEN: FRZKAP; ISSN: 0367-3057
PUBLISHER: Zdorov'ya
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian
OTHER SOURCE(S): CASREACT 139:6791
GI



AB A series of (2,4-dioxo-5-thiazolidinylidene)acetic acid derivs. I (R1 = 2-MeC6H4NH, 2-HOC6H4CONHNH, piperidino, PhCH2NH, 4-OHCC6H4O, etc.) and two bis(thiazolidinedione)s II (R2 = H, EtO2CCH2) were synthesized as potential biol. active compds.
IT 313666-65-8P, [5,5'-Bithiazolidine]-2,2',4,4'-tetrone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of bis(thiazolidinedione)s and esters, amides, and hydrazides of (dioxothiazolidinylidene)acetic acid)
RN 313666-65-8 CA
CN [5,5'-Bithiazolidine]-2,2',4,4'-tetrone (CA INDEX NAME)



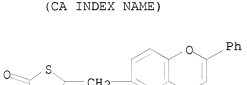
L6 ANSWER 14 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 139:6779 CA
TITLE: Product class 17: thiazoles
AUTHOR(S): Kikelj, D.; Urleb, U.
CORPORATE SOURCE: Fac. Pharm., University Ljubljana, Slovenia
SOURCE: Science of Synthesis (2002), 11, 627-833
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review of synthetic methods to prepare thiazoles as well as reactive modifications of thiazole moieties.
IT 533885-79-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thiazoles and reactions thereof)
RN 533885-79-9 CA
CN 4-Thiazolidinone, 5,5'-ethylidenebis[2-thioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)
REFERENCE COUNT: 1224 THERE ARE 1224 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 136:31520 CA
TITLE: Synthesis and hypoglycemic activity of some new flavone derivatives: 4th communication: 6-flavonyl-2,4-thiazolidinediones
AUTHOR(S): Bozdag-Dundar, Oya; Waheed, Abdul; Verspohl, Eugen J.; Ertan, Rahmiye
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ankara University, Ankara, Turk.
SOURCE: Arzneimittel-Forschung (2001), 51(8), 623-627
CODEN: ARZNAD; ISSN: 0004-4172
PUBLISHER: Editio Cantor Verlag

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several of the flavonyl compds. prepared showed insulinotropic activities in INS-1 cells.
IT 380498-64-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and hypoglycemic activity of 6-flavonyl-2,4-thiazolidinediones)
RN 380498-64-6 CA
CN 2,4-Thiazolidinedione, 5-[(4-oxo-2-phenyl-4H-1-benzopyran-6-yl)methyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 135:148239 CA
TITLE: DNA encoding human chimeric oncoprotein PAX8-PPARγ found in thyroid follicular carcinomas
INVENTOR(S): Kroll, Todd G.; Fletcher, Jonathan A.
PATENT ASSIGNEE(S): Brigham and Women's Hospital, Inc., USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001052789 | A2 | 20010726 | WO 2001-US1664 | 20010118 |
| WO 2001052789 | A3 | 20020221 | | |
| W: BR, CA, JP | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| US 20020106796 | A1 | 20020808 | US 2001-765111 | 20010118 |
| US 6723506 | B2 | 20040420 | | |

PRIORITY APPLN. INFO.: US 2000-177109P P 20000120
US 2000-225079P P 20000814

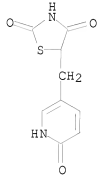
AB An oncogene designated PAX8-PPARγ1 contains a PAX8 coding region fused to PPARγ coding region. To define the biochem. nature of t(2;3)(q13;p25) observed in follicular thyroid carcinoma, the 3p25 and the 2q13 translocation breakpoints were mapped using dual color fluorescence

in situ hybridization. Mol. characterization of PAX8-PPARγ1 mols. provides nucleotide and amino acid sequences useful for detection and treatment of certain tumors, particularly thyroid follicular carcinomas.

IT 350685-90-4D, alkyl derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA encoding human chimeric oncoprotein PAX8-PPARγ found in thyroid follicular carcinomas)

RN 350685-90-4 CA

CN 2,4-Thiazolidinedione, 5-[(1,6-dihydro-6-oxo-3-pyridinyl)methyl]- (CA INDEX NAME)



L6 ANSWER 17 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 134:353303 CA

TITLE: preparation of thiazolidinyl-containing bicyclic heterocycles as humane peroxisome proliferator-activated receptor γ agonists

INVENTOR(S): Nomura, Masahiro; Murakami, Koji; Kakuta, Masaki

PATENT ASSIGNEE(S): Kyorin Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

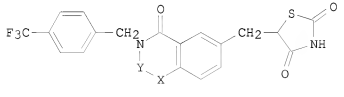
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| JP 2001131173 | A | 20010515 | JP 2000-242708 | | 20000810 |
| PRIORITY APPLN. INFO.: | | | JP 1999-235531 | A | 19990823 |

OTHER SOURCE(S): MARPAT 134:353303

GI

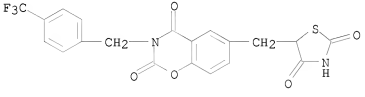


I

AB Title compds. I (YX = CO2, CH2O, CH:CH), their pharmaceutically acceptable salts, or hydrates, useful as for treatment of Type II diabetes and hyperlipemia, are prepared 2-Hydroxy-5-[(2,4-dioxothiazolidin-5-yl)methyl]-N-[(4-trifluorophenyl)methyl]benzamide was reacted with trioxane in the presence of AcOH in CH2Cl2 at room temperature for 2 day to give 42% 6-[(2,4-dioxothiazolidin-5-yl)methyl]-3-[(4-trifluorophenyl)methyl]-1,3-benzoxazin-4-one showing good transcription activity of proliferator-activated receptor γ in vitro.

IT 339152-88-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bicyclic heterocycles as humane peroxisome proliferator-activated receptor γ agonists)

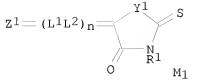
RN 339152-88-4
CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-[(2,4-dioxo-5-thiazolidinyl)methyl]-3-[[4-(trifluoromethyl)phenyl]methyl]- (CA INDEX NAME)



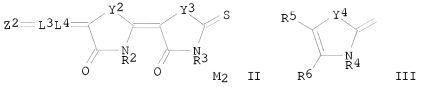
L6 ANSWER 18 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 133:288780 CA
TITLE: Silver halide photographic emulsion containing merocyanine dye
INVENTOR(S): Kobayashi, Kazuhisa
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2000275774 | A | 20001006 | JP 1999-82915 | 19990326 |

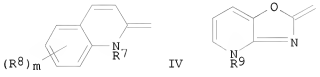
PRIORITY APPLN. INFO.: JP 1999-82915 19990326
OTHER SOURCE(S): MARPAT 133:288780
GI



M1 I



M2 II III



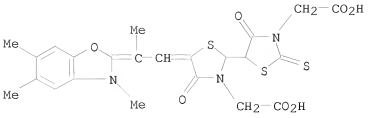
IV V

AB The title photog. material possesses, on ≥1 side of a support, a Ag halide emulsion layer containing ≥2 kinds of Ag halide grains both of which are different at least in grain diameter and are sensitized with ≥1 sensitizing dye selected from I and II [Z1, Z2 = III-V {Y4 = O, S, Se, NR13; R4, R13 = (substituted) alkyl; R5, R6 = H, OH, halo, alkyl, alkenyl, alkoxy, alkylthio, arylthio, aryl, acyl, acyloxy, alkoxycarbonyl, alkylsulfonyl, carbamoyl, sulfamoyl, CO2H, CN (these substituents may be substituted), R5 and R6 may link each other to form an aliphatic or aromatic ring which may be substituted; R7, R9 = (substituted) alkyl; R8 = alkyl, alkenyl, alkoxy, sulfo, halo; when m ≥ 2, the plural R8 groups are the same or different and may link each other to form a ring}; Y1 = O, S, Se, NR11; Y2, Y3 = O, S, Se, NR12; L1. L2 = (substituted) methine; n = 1 or 2; R1-3, R11, R12 = (substituted) alkyl; ≥1 of R1 and R4 (when Z1 = III), ≥1 of R1 and R7 (when Z1 = IV), ≥1 of R1 and R9 (when Z1 = V), ≥1 of R2-4 (when Z2 = III), ≥1 of R2, R3, and R7 (when Z2 = IV), and ≥1 of R2, R3, and R9 (when Z2 = V) are substituted with water-soluble groups; M1, M2 = counter ion] and the slope is <3 over the whole region of the characteristic curve obtained by plot of optical d. against the logarithm of exposure upon exposure using a laser beam of wavelength 600-700 nm. The material shows low residual color stain and stable gradation reproducibility.

IT 299186-19-9
RL: DEV (Device component use); USES (Uses)
(photog. emulsion sensitized merocyanine dye and having specific characteristic curve)

RN 299186-19-9 CA

CN [2,5'-Bithiazolidine]-3,3'-diacetic acid, 4,4'-dioxo-2'-thioxo-5-[2-(3,5,6-trimethyl-2(3H)-benzoxazolylidene)propylidene]- (CA INDEX NAME)

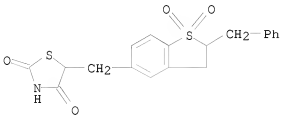


L6 ANSWER 19 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 131:346538 CA
TITLE: Thiazolidine and oxazolidine derivatives for the treatment of acute myocardial infarction and inhibition of cardiomyocyte apoptosis
INVENTOR(S): Wang, Ping H.
PATENT ASSIGNEE(S): Regents of the University of California, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9959586 | A1 | 19991125 | WO 1999-US11101 | 19990519 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 9940052 | A | 19991206 | AU 1999-40052 | 19990519 |
| PRIORITY APPLN. INFO.: | | | US 1998-86030P | P 19980519 |
| | | | US 1998-87204P | P 19980528 |
| | | | WO 1999-US11101 | W 19990519 |

OTHER SOURCE(S): MARPAT 131:346538
AB It has been demonstrated that antidiabetic thiazolidine and oxazolidine derivs. (glitazones) exhibit novel effects on apoptosis of cardiomyocytes. These substances are capable of greatly decreasing apoptosis by a pathway that is not Caspase 3 dependent. Addition of IGF1 to the treatment further prevents apoptosis. Glitazones alone or glitazones plus IGF1 should be administered at the beginning of a myocardial infarction and continued through the recuperation period to reduce morbidity and prevent unfavorable remodeling of the myocardium. Thus, troglitazone (5 μM), when added to a culture medium, reduced doxorubicin-induced apoptosis of cardiomyocyte by approx. 60%.
IT 109209-48-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thiazolidine and oxazolidine derivs. for treatment of acute myocardial

infarction and inhibition of cardiomyocyte apoptosis)
RN 109209-48-5 CA
CN 2,4-Thiazolidinedione, 5-[[2,3-dihydro-1,1-dioxido-2-(phenylmethyl)benzo[b]thien-5-yl]methyl]- (CA INDEX NAME)

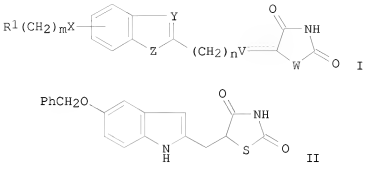


OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 126:74831 CA
ORIGINAL REFERENCE NO.: 126:14485a
TITLE: Preparation of thiazolidinedione or oxazolidinedione derivatives as hypoglycemic agents
INVENTOR(S): Nomura, Yutaka; Masui, Seiichiro; Sakuma, Shogo
PATENT ASSIGNEE(S): Nippon Chemiphar Co., Ltd., Japan
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9635688 | A1 | 19961114 | WO 1996-JP829 | 19960328 |
| W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UG, US, UZ, VN, AZ, BY, KZ, RU, TJ, TM | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9651217 | A | 19961129 | AU 1996-51217 | 19960328 |
| JP 09176163 | A | 19970708 | JP 1996-99084 | 19960328 |
| PRIORITY APPLN. INFO.: | | | JP 1995-134798 A | 19950508 |
| | | | JP 1995-303562 A | 19951027 |
| | | | WO 1996-JP829 W | 19960328 |

OTHER SOURCE(S): MARPAT 126:74831
GI

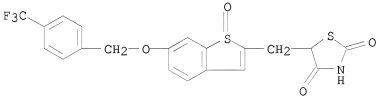


AB The title compds. I [R1 represents Ph, naphthyl, cycloalkyl or a heterocycle optionally having substituents selected from among alkyl, alkoxy, halogeno, hydroxy, halogenoalkyl, halogenoalkoxy, nitro, amino, Ph, thienyl, furyl, thiazolyl and pyridyl; V represents CH or CH2; W represents O or S; Y represents CH or N; Z represents O, S, SO, SO2 or NR2 (wherein R2 represents H, alkyl, aralkyl or acyl); X represents O, S, CO, CH2, NR3, NR4CO or CONR5 (wherein R3, R4 and R5 independently represent each H or alkyl); m and n independently represent each an integer of 0 to 4; and the dotted line represents a single or double bond] are prepared The title compound II at 100 mg/kg/day for 3 days gave 45% reduction of plasma glucose in diabetic mice.

IT 185435-93-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of thiazolidinedione or oxazolidinedione derivs. as hypoglycemic agents)

RN 185435-93-2 CA

CN 2,4-Thiazolidinedione, 5-[[1-oxido-6-[[4-(trifluoromethyl)phenyl]methoxy]benzo[b]thien-2-yl]methyl]- (CA INDEX NAME)



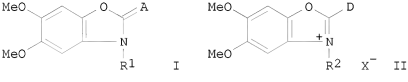
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 124:101746 CA
ORIGINAL REFERENCE NO.: 124:18749a,18752a
TITLE: Silver halide photographic material spectrally sensitized by cyanine dye
INVENTOR(S): Kita, Noryasu; Kagawa, Nobuaki
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 07209792 | A | 19950811 | JP 1994-2731 | 19940114 |
| PRIORITY APPLN. INFO.: | | | JP 1994-2731 | 19940114 |

GI



AB The claimed photog. material has at least one Ag halide emulsion layer spectrally sensitized by a merocyanine dye I (R1 = C1-10 aliphatic group with water-solubilizing substituent; A = group forming a merocyanine dye and linked through conjugated bonds with the oxazole moiety) or cyanine dye II (R2 = C1-10 aliphatic group with water-solubilizing substituent; D = group forming a cyanine dye and linked through conjugated bonds with the oxazole moiety; X- = counter ion). The spectral sensitizers increase both photog. speed and wash off property resulting in low residual dye stain. They are suited for color papers and medical x-ray films of rapid processing types.

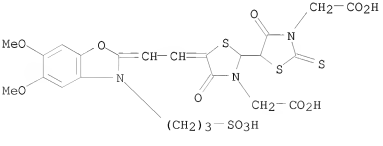
IT 172356-55-7P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(silver halide photog. material spectrally sensitized by cyanine dye)

RN 172356-55-7 CA

CN [2,5'-Bithiazolidine]-3,3'-diacetic acid, 5-[[5,6-dimethoxy-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]ethylidene]-4,4'-dioxo-2'-thioxo-, compd. with N,N-diethylethanamine (1;1) (9CI) (CA INDEX NAME)

CM 1

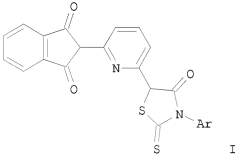
CRN 172356-54-6
CMF C24 H25 N3 O12 S4



CM 2

CRN 121-44-8
CMF C6 H15 N

L6 ANSWER 22 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 123:58772 CA
ORIGINAL REFERENCE NO.: 123:10531a,10534a
TITLE: Syntheses of 3-aryl-5-[2'-(α-pyridophthalonyl)]rhodanines and their dyeing performance on acetate and/or fibers
AUTHOR(S): Fadda, A. A.; Aly, M. M.; Etman, H. A.; Fouda, A.
CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Mansoura University, Mansoura, Egypt
SOURCE: Indian Journal of Fibre & Textile Research (1995), 20(2), 108-11
CODEN: IJFRET; ISSN: 0971-0426
PUBLISHER: Publications & Information Directorate, CSIR
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

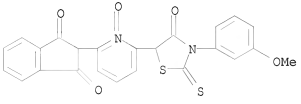


I

AB 3-Aryl-5-[2'-(α-pyridophthalonyl)]rhodanines I (Ar = m-MeOC6H4, p-HOC6H4, m-MeC6H4, o-MeOC6H4, p-MeC6H4) were prepared by the treatment of 2-(2'-pyridyl N-oxide)indan-1,3-dione with different arylrhodanines at 90° in the presence of Ac2O, and their dyeing performance on polyester, acrylic and wool fibers was assessed. The effect of nature and orientation of substituents on the color of these compds. was also studied. All the compds. showed good affinity towards wool fibers and have no affinity towards polyester and polyacrylic fibers.

IT 164853-87-6P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

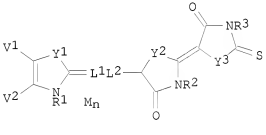
(syntheses of 3-aryl-5-[2'-(α-pyridophthalonyl)]rhodanines and their dyeing performance on wool)
RN 164853-87-6 CA
CN 1H-Indene-1,3(2H)-dione, 2-[6-[3-(3-methoxyphenyl)-4-oxo-2-thioxo-5-thiazolidinyl]-1-oxido-2-pyridinyl]- (CA INDEX NAME)



L6 ANSWER 23 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 122:251986 CA
ORIGINAL REFERENCE NO.: 122:45761a,45764a
TITLE: Silver halide photographic material
INVENTOR(S): Sasaki, Kamyuki; Kagawa, Nobuaki
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 06313941 | A | 19941108 | JP 1993-104460 | 19930430 |

PRIORITY APPLN. INFO.: JP 1993-104460 19930430
OTHER SOURCE(S): MARPAT 122:251986
GI



I

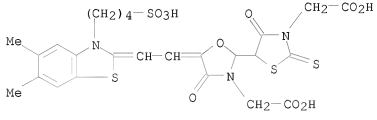
AB The title photog. materials comprise a support coated with ≥1 photosensitive emulsion layer ≥1 of which contains platy Ag halide grains with average aspect ratio ≥2 to which ≥1 sensitizing dye I [Y1-3 = NR, O, S, Se; R1 = C≤10 aliphatic group substituted for water-soluble groups; R, R2, R3 = aliphatic group, aryl, heterocycle, ≥2 of R, R2, and R3 are water-soluble group-substituted groups; V1, V2 = H, alkyl, alkoxy, aryl, V1 and V2 may from a condensed ring together with the azole ring; L1, L2 = (substituted) methine; M = ion required to offset the

total charge of the mol.; n = number required to neutralize the charge of the mol.] is added prior to the starting of chemical ripening. The materials show high sensitivity toward red light and good storage stability and prevent roller marks and fading of the latent image. Thus, a photog. film was prepared by using a Ag(Br, I) emulsion (aspect ratio 2.57) to which I [Y1 = O, Y2 = Y3 = S, R1 = (CH2)2SO3H, R2 = R3 = CH2CO2H, V1 = V2 = OMe, L1 = L2 = CH] was added after phys. ripening.

IT 161920-33-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. emulsion containing merocyanine dye sensitizer)

RN 161920-33-8 CA

CN 3-Oxazolidineacetic acid, 2-[3-(carboxymethyl)-4-oxo-2-thioxo-5-thiazolidinyl]-5-[2-[5,6-dimethyl-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]ethylidene]-4-oxo-, potassium salt (1:1) (CA INDEX NAME)



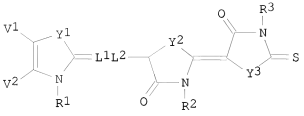

L6 ANSWER 24 OF 59 CA COPYRIGHT 2009 ACS on STN

| | |
|---|---|
| ACCESSION NUMBER: | 122:226679 CA |
| ORIGINAL REFERENCE NO.: | 122:41190h,41191a |
| TITLE: | Silver halide photographic materials |
| INVENTOR(S): | Inoe, Kenichi; Kagawa, Nobuaki |
| PATENT ASSIGNEE(S): | Konishiroku Photo Ind, Japan |
| SOURCE: | Jpn. Kokai Tokkyo Koho, 22 pp.<br>CODEN: JKXXAF |
| DOCUMENT TYPE: | Patent |
| LANGUAGE: | Japanese |
| FAMILY ACC. NUM. COUNT: | 1 |

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 06313942 | A | 19941108 | JP 1993-104461 | 19930430 |
| PRIORITY APPLN. INFO.: | | | JP 1993-104461 | 19930430 |

GI



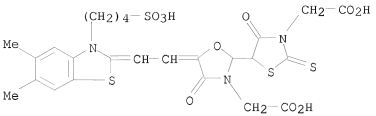
I

AB The title photog. material comprises a support coated with ≥1 photosensitive emulsion layer ≥1 of which is spectrally sensitized with ≥1 sensitizing dye I [Y1-3 = NR, O, S, Se; R1 = C≤10 aliphatic group substituted for water-soluble groups; R, R2, R3 = aliphatic group, aryl, heterocycle, ≥2 of R, R2, and R3 are water soluble group-substituted groups; V1, V2 = H,alkyl, alkoxy, aryl, V1 and V2 may form a condensed ring together with the azole ring; L1, L2 = (substituted) methine; M = ion required to offset the total charge of the mol.; n = number required to neutralize the charge of the mol.] and contain ≥1 polymer [CH2CR1(Ln(CONR2R3)m)xA100-x] [R1 = H, C≤6 alkyl; R2, R3 = (substituted) C≤10 alkyl, aryl, aralkyl, R2 and R3 may form a N-containing heterocycle; A = unit from copolymerizable ethylenic unsatd. monomers; L = divalent linking group; n = 0, 1; m = 1, 2; x = 70-100 mol%] in ≥1 of its constituent layers. The material shows high spectral sensitivity in red light wavelength regions and is independent of exposure temperature Thus, a photog. film was prepared by using a Ag(I, Br) emulsion layer sensitized with I [Y1 = O, Y2 = Y3 = S, R1 = (CH2)2SO3H, R2 = R3 = CH2CO2H, V1 = V2 = OMe, L1 = L2 = CH] and a gelatin-based protective layer containing polyacrylamide.

IT 161920-33-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(sensitizer; photog. film containing polyacrylamide derivative and merocyanine dye sensitizer)

RN 161920-33-8 CA

CN 3-Oxazolidineacetic acid, 2-[3-(carboxymethyl)-4-oxo-2-thioxo-5-thiazolidinyl]-5-[2-[5,6-dimethyl-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]ethylidene]-4-oxo-, potassium salt (1:1) (CA INDEX NAME)

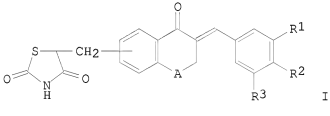


● K

L6 ANSWER 25 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 121:35593 CA
ORIGINAL REFERENCE NO.: 121:6579a,6582a
TITLE: Preparation of thiazolidine-2,4-dione derivatives as antidiabetics
INVENTOR(S): Myaoka, Shozo; Sato, Hiroko; Takahashi, Keimei; Suzuki, Myoshi
PATENT ASSIGNEE(S): Terumo Corp, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 05310719 | A | 19931122 | JP 1992-110461 | 19920428 |

PRIORITY APPLN. INFO.: JP 1992-110461 19920428
OTHER SOURCE(S): MARPAT 121:35593
GI



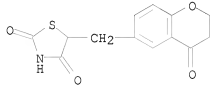
AB The title derivs. I (R1 - R3 = H, OH, lower alkyl or alkoxy, alkoxycarbonyloxy; A = O, methylene) are prepared A mixture of 5.10 g 5-[(3,4-dihydro-1(2H)-naphthalenon-7-yl)methyl]thiazolidine-2,4-dione (prepared from tetralone in 3 steps), 3.60 g 3-methoxy-4-methoxymethoxybenzaldehyde, aqueous NaOH in MeOH was treated at room temperature for 3.5 h to give 3.40 g 5-[(2-(3-methoxy-4-methoxymethoxyphenyl)methylene-3,4-dihydro-1(2H)-naphthalenon-7-yl)methyl]thiazolidine-2,4-dione, whose solution in THF-MeOH

was treated with HCl at 60° for 2 h to give 2.60 g I (R1 = OMe, R2 = OH, R3 = H, A = CH2) (II). II inhibited aldose reductase with IC50 of 4.5 + 10-6.

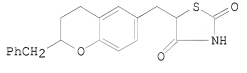
IT 154149-84-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation of, with benzaldehydes)

RN 154149-84-5 CA

CN 2,4-Thiazolidinedione, 5-[(3,4-dihydro-4-oxo-2H-1-benzopyran-6-yl)methyl]- (CA INDEX NAME)



L6 ANSWER 26 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 115:222671 CA
ORIGINAL REFERENCE NO.: 115:37707a,37710a
TITLE: Metabolism of a new thiazolidinedione hypoglycemic agent CP-68,722 in rat: metabolite identification by gas chromatography mass spectrometry
AUTHOR(S): Fouda, H. G.; Lukaszewicz, J.; Clark, D. A.; Hulin, B.
CORPORATE SOURCE: Pfizer Inc., Groton, CT, 06340, USA
SOURCE: Xenobiotica (1991), 21(7), 925-34
CODEN: XENOBH; ISSN: 0049-8254
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

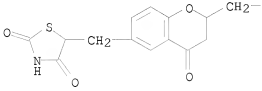


I

AB After i.v. administration to rat of CP-68,722 (I), a new thiazolidinedione antidiabetic drug, four metabolites were excreted in bile, as glucuronide conjugates. Incubation of the drug with a rat liver microsomal preparation yielded the four in vivo metabolite aglycons and several addnl. in vitro metabolites. Seven in vivo-generated metabolites were isolated by HPLC. Each metabolite was converted to stable isotope labeled or non-labeled derivs. Capillary GLC mass spectrometric anal. of the derivs. indicated that five metabolites result from hydroxylation and one from oxidation to the chromanone. The sites of metabolism were deduced from the electron ionization spectra. Authentic stds. for five metabolites were synthesized. Agreements of mass spectra and chromatog. retention times confirmed the five proposed structures. Two metabolites, detected only in vivo, await structure confirmation.

IT 137103-36-7P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and as thiazolidinedione CP-68722 metabolite)
RN 137103-36-7 CA
CN 2,4-Thiazolidinedione, 5-[[3,4-dihydro-4-oxo-2-(phenylmethyl)-2H-1-benzopyran-6-yl]methyl]- (CA INDEX NAME)

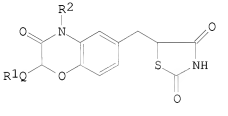


OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L6 ANSWER 27 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 114:603 CA
ORIGINAL REFERENCE NO.: 114:119a
TITLE: Hypolipemics containing (thiazolidinylmethyl)benzoxazines
INVENTOR(S): Iijima, Ikuo; Ozeki, Masakatsu; Okumura, Kunito; Otani, Akio; Inamasu, Masanori
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

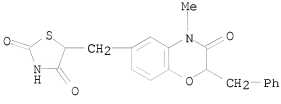
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 02167226 | A | 19900627 | JP 1989-216741 | 19890822 |
| JP 04060583 | B | 19920928 | | |
| PRIORITY APPLN. INFO.: | | | JP 1988-229087 | A1 19880913 |

OTHER SOURCE(S): MARPAT 114:603
GI

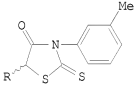


AB Hypolipemics, useful for prophylactic and therapeutic treatment of arteriosclerosis, contain the title compds. I [R1 = Ph, (un)substituted thiazolyl; R2 = H, lower alkyl; Q = bond or lower alkylene] or their pharmacol. acceptable salts as active ingredients. Rats fed a high-cholesterol diet containing 100 mg% (sic) I (R1Q = 2-phenylthiazol-4-ylmethyl, R2 = H) (preparation given) for 3 days resulted in decreased serum cholesterol level, increased high-d. lipoprotein

cholesterol level, and decreased serum triglyceride level.
IT 118779-17-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hypolipemic agent)
RN 118779-17-2 CA
CN 2,4-Thiazolidinedione, 5-[[3,4-dihydro-4-methyl-3-oxo-2-(phenylmethyl)-2H-1,4-benzoxazin-6-yl]methyl]- (CA INDEX NAME)

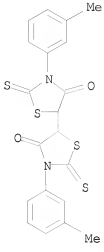


L6 ANSWER 28 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 113:231255 CA
ORIGINAL REFERENCE NO.: 113:39021a,39024a
TITLE: Application of phase-transfer catalysis in reactions with some rhodanine derivatives
AUTHOR(S): El-Shafei, Ahmed Kamal; El-Sayed, Ahmed Mahmoud; Sultan, Adel; Abdel-Ghany, Hossam
CORPORATE SOURCE: Chem. Dep., Fac. Sci., Sohag, Egypt
SOURCE: Gazzetta Chimica Italiana (1990), 120(3), 197-201
CODEN: GCITA9; ISSN: 0016-5603
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:231255
GI



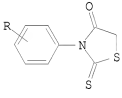
I

AB A series of substitution, addition and condensation reactions using 2-thioxo-N-(m-tolyl)thiazolidin-4-one (I, R = H), in solid-liquid two-phase systems are reported. The new products are obtained in fair yields and their structures assigned. Thus, I (R = H) was treated with ClCH2CO2Et in benzene containing Bu4NBr to give 81% I (R = CH2CO2Et).
IT 130685-89-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 130685-89-1 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-bis(3-methylphenyl)-2,2'-dithioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 29 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 113:191217 CA
ORIGINAL REFERENCE NO.: 113:32369a,32372a
TITLE: Rhodanine derivatives
AUTHOR(S): Das, Kasturi; Panda, D.; Dash, B.
CORPORATE SOURCE: Dep. Chem., Utkal Univ., Bhubaneswar, 751 004, India
SOURCE: Journal of the Indian Chemical Society (1990), 67(1), 58-60
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

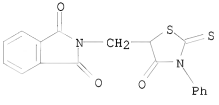


I

AB The synthesis of some 3,5-disubstituted aminomethylrhodanines was carried out by Mannich condensation of 3-arylrhodanines I (R = H; 2-, 3-, 4-Me; 4-Cl; 2-, 4-MeO; 4-NO2) with Et2NH, piperidine, morpholine, phthalimide, and quinazolone resp. The mass spectral fragmentation patterns of 4 representative members of 3-arylrhodanines have been investigated and the mechanism of fragmentation is discussed. All the compds. have been screened for their fungicidal activity.

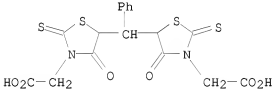
IT 130189-44-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and fungicidal activity of)
RN 130189-44-5 CA
CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-oxo-3-phenyl-2-thioxo-5-thiazolidinyl)methyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 30 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 113:174070 CA
ORIGINAL REFERENCE NO.: 113:29513a,29516a
TITLE: Synthesis of rhodanine and its derivatives
AUTHOR(S): Li, Duxin; Chen, Liang; Wang, Guosheng; Jia, Wei
CORPORATE SOURCE: Shanxi Univ., Jinan, Peop. Rep. China
SOURCE: Shanxi Daxue Xuebao, Ziran Kexueban (1989), 12(3), 304-11
CODEN: SDXKDT; ISSN: 0253-2395
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Methods for preparation of rhodanine and its derivs., useful as photog. sensitizers, were described. The methods used were simple in procedure and high in yield. The structures of the products were characterized by IR and NMR.
IT 130021-49-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of)
RN 130021-49-7 CA
CN 3-Thiazolidineacetic acid, 5,5'-(phenylmethylene)bis[4-oxo-2-thioxo- (CA INDEX NAME)

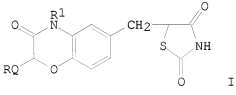


L6 ANSWER 31 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 113:145347 CA
ORIGINAL REFERENCE NO.: 113:24493a,24496a
TITLE: 2-Substituted-6-[(2,4-dioxothiazolidin-5-yl)methyl]-3-oxo-1,4-benzoxazines as hypoglycemics
INVENTOR(S): Iijima, Ikuo; Ozeki, Masakatsu; Okumura, Kunito; Inamasu, Masanori
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 02138218 | A | 19900528 | JP 1989-165582 | 19890628 |
| JP 04060584 | B | 19920928 | | |
| PRIORITY APPLN. INFO.: | | | JP 1988-217774 | A1 19880830 |
| OTHER SOURCE(S): | MARPAT 113:145347 | | | |

GI



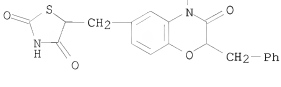
I

AB The title compds. I (R = Ph, substituted thiazolyl; R1 = H, lower alkyl; Q = direct bond, lower alkylene) or their pharmacol. acceptable salts are hypoglycemic agents. I and their salts are especially useful for treatment of insulin-independent diabetes. An aqueous NaNO2 solution was added dropwise to a mixture of 6-amino-2-benzyl-3-oxo-1,4-benzoxazine (prepared by cyclocondensation of PhCH2CHBrCOCl with 2-amino-4-nitrophenol, followed by reduction), concentrated HCl, and acetone at 0° and the reaction mixture was stirred at room temperature for 30 min. Subsequently CH2:CHCO2Me was added, then Cu2O was gradually added at 35-40°, and the reaction mixture was further stirred for 30 min to give 73% Me 3-(2-benzyl-3-oxo-1,4-benzoxazin-6-yl)-2-chloropropionate. This was treated with a mixture of thiourea, AcONa, and MeOCH2CH2OH at 100° for 7 h to give 76% 2-benzyl-6-[(2-imino-4-oxothiazolidin-5-yl)methyl]-3-oxo-1,4-benzoxazine, which was treated with p-MeC6H4SO3H.H2O in H2O/MeOCH2CH2OH under reflux for 4 h to give 84% I (QR = CH2Ph, R1 = H) (II). II lowered blood sugar ≥20% in diabetic mice.

IT 118779-17-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hypoglycemic)

RN 118779-17-2 CA

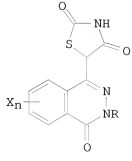
CN 2,4-Thiazolidinedione, 5-[[3,4-dihydro-4-methyl-3-oxo-2-(phenylmethyl)-2H-1,4-benzoxazin-6-yl]methyl]- (CA INDEX NAME)



L6 ANSWER 32 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 111:153824 CA
ORIGINAL REFERENCE NO.: 111:25657a,25660a
TITLE: 5-(4-Oxo-1-phthalazinyl)-2,4-dioxothiazolidine derivatives as aldose reductase inhibitors
INVENTOR(S): Niigata, Kunihiro; Okada, Minoru; Yoneda, Takashi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 01019077 | A | 19890123 | JP 1987-175264 | 19870713 |

PRIORITY APPLN. INFO.: JP 1987-175264 19870713
OTHER SOURCE(S): MARPAT 111:153824
GI



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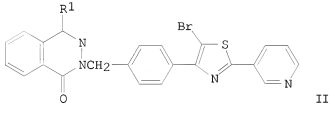
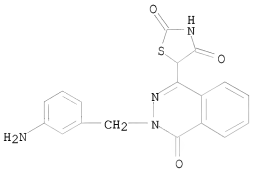


II

AB Title compds. I [X = H, halo; n = 1,2; R = H, alkyl substituted phenyl-, (halo-substituted)imidazolyl- or thienyl-, naphthyl-, or 2-alkyl-5-halothiazol-4-ylalkyl], useful for treatment of diabetic complications such as diseases caused by aldose reductase (no data), are prepared Treatment of a phthalazine II (R1 = CH2CO2Et) (generated in situ from its HBr salt) in CHCl3 with Br in the presence of (PhCO)2O2 under a 300W lamp gave II (R1 = CHBrCO2Et), which in EtOH was refluxed with (H2N)2CS to afford II (R1 = 2,4-dioxothiazolidin-5-yl).

IT 122812-82-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, by imidazolobutanoic acid, in preparation of aldose reductase

inhibitor)
RN 122812-82-2 CA
CN 2,4-Thiazolidinedione, 5-[3-[(3-aminophenyl)methyl]-3,4-dihydro-4-oxo-1-phthalazinyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

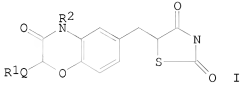
L6 ANSWER 33 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 110:75529 CA
ORIGINAL REFERENCE NO.: 110:12489a,12492a
TITLE: Preparation of 6-[(2,4-dioxo-5-thiazolidinyl)methyl]-1H-1,4-benzoxazine-3(4H)-ones as antidiabetics
INVENTOR(S): Iijima, Ikuo; Ozeki, Masakatsu; Okumura, Kunihito; Inamasu, Masanori
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 283036 | A1 | 19880921 | EP 1988-104362 | 19880318 |
| EP 283036 | B1 | 19910911 | | |
| R: AT, BE, CH, DE, ES, GB, GR, IT, LI, LU, NL, SE | | | | |
| JP 63230689 | A | 19880927 | JP 1987-65360 | 19870318 |
| JP 04060597 | B | 19920928 | | |
| FI 8801104 | A | 19880919 | FI 1988-1104 | 19880309 |
| FI 91870 | B | 19940513 | | |
| FI 91870 | C | 19940825 | | |
| US 4824833 | A | 19890425 | US 1988-167344 | 19880314 |
| AU 8813176 | A | 19880922 | AU 1988-13176 | 19880316 |
| AU 601029 | B2 | 19900830 | | |
| DK 8801475 | A | 19880919 | DK 1988-1475 | 19880317 |
| CN 88101541 | A | 19881005 | CN 1988-101541 | 19880317 |
| CN 1019911 | C | 19930217 | | |
| HU 50337 | A2 | 19900129 | HU 1988-1318 | 19880317 |
| HU 203548 | B | 19910828 | | |
| IL 85768 | A | 19930221 | IL 1988-85768 | 19880317 |

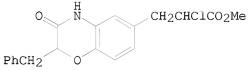
| | | | | | |
|---|---|---|---|---|---|
| FR 2612517 | A1 | 19880923 | FR 1988-3571 | | 19880318 |
| FR 2612517 | B1 | 19921113 | | | |
| AT 67199 | T | 19910915 | AT 1988-104362 | | 19880318 |
| ES 2038710 | T3 | 19930801 | ES 1988-104362 | | 19880318 |
| PRIORITY APPLN. INFO.: | | | JP 1987-65360 | A | 19870318 |
| | | | EP 1988-104362 | A | 19880318 |

OTHER SOURCE(S): CASREACT 110:75529; MARPAT 110:75529

GI



I



II

AB The title compds. (I; Q = bond, alkylene; R1 = Ph, substituted thiazolyl; R2 = H, alkyl) were prepared PhCH2CH2CO2H was heated 45 min at 70° with SOCl2 in CCl4, whereupon NBS and aqueous HBr were added and the mixture heated 1 h and the product added to a THF solution of 2,4-(H2N)(O2N)C6H3OH containing PhNMe2 and the mixture stirred 40 min to give 2-benzyl-6-nitro-1H-1,4-benzoxazin-3(4H)-one. The latter was reduced to the amine which was diazotized and the product stirred with H2C:CHCO2Me and CuO to give benzoxazinylpropionate II which was heated at 100° for 7 h with (H2N)2CS in MeOCH2CH2OH containing NaOAc to give, after hydrolysis of the resulting imine, I (Q = CH2, R1 = Ph, R2 = H). A similarly prepared I (Q = bond, R1 = 2-phenyl-4-thiazolyl, R2 = H), fed to mice at 5 mg% in powdered chow for 5 days, reduced blood glucose levels 60%.

IT 118779-17-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antidiabetic agent)

RN 118779-17-2 CA

CN 2,4-Thiazolidinedione, 5-[[3,4-dihydro-4-methyl-3-oxo-2-(phenylmethyl)-2H-1,4-benzoxazin-6-yl]methyl]- (CA INDEX NAME)



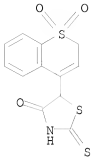
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 34 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 108:150462 CA
ORIGINAL REFERENCE NO.: 108:24709a,24712a
TITLE: Preparation of heterocyclylidenethiazolidine derivatives as aldose reductase inhibitors and pharmaceutical compositions containing them
INVENTOR(S): Niigata, Kunihiro; Okada, Minoru; Yoneda, Takashi
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 197 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

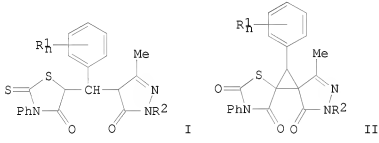
| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| EP 237138 | A1 | 19870916 | EP 1987-300109 | | 19870107 |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | | |
| JP 63165368 | A | 19880708 | JP 1986-310481 | | 19861224 |
| DK 8700044 | A | 19870708 | DK 1987-44 | | 19870106 |
| AU 8767401 | A | 19870709 | AU 1987-67401 | | 19870107 |
| PRIORITY APPLN. INFO.: | | | JP 1986-1847 | A | 19860107 |
| | | | JP 1986-189850 | A | 19860812 |

OTHER SOURCE(S): MARPAT 108:150462
GI For diagram(s), see printed CA Issue.
AB The title compds. I [A is alkylene or alkenylene chain which may have a hetero atom; Z1, Z2, Y = O, S, NH; R1, R2 = H, halo, alkyl, alkoxy, alkylthio, Ph, NO2, OH, etc.; R3 = H, NH2, (substituted) alkyl, Ph, etc.], useful as aldose reductase inhibitors, were prepared by reaction of ketone derivative II and heterocyclic derivative III in the presence of a base or Lewis acid. A mixture of rhodanine-3-acetic acid 1.91, 5,7-dimethyl-1-tetralone 1.7, and 1,8-diazabicyclo[5.4.0]undec-7-ene 0.5 g in 50 mL AcOH was heated in a hot bath at 180-200° for 8 h to give 34.6% naphthylidenethiazolidine derivative IV. At 10-6M, 5-(6-methoxy-1,2,3,4-tetrahydro-1-naphthylidene)-4-oxo-2-thioxo-3-thiazolidineacetic acid (prepared in the same way as above) in vitro inhibited aldose reductase by 93%.
IT 113073-59-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as aldose reductase inhibitor)
RN 113073-59-9 CA
CN 4-Thiazolidinone, 5-(1,1-dioxido-2H-1-benzothiopyran-4-yl)-2-thioxo- (CA INDEX NAME)



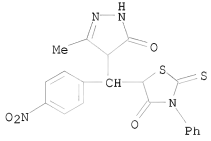
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 35 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 107:172278 CA
ORIGINAL REFERENCE NO.: 107:27587a,27590a
TITLE: Michael addition of pyrazolone and thiazolidone to bis- and cyclopropane derivatives: their fungitoxicity study
AUTHOR(S): Mitra, P.; Das, N. B.; Mittra, A. S.
CORPORATE SOURCE: Dep. Chem., Ravenshaw Coll., Cuttack, 753003, India
SOURCE: Acta Ciencia Indica, Chemistry (1985), 11(4), 267-72
CODEN: ACICDV; ISSN: 0253-7338
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Twenty I (R1 = H, OH, NO2, MeO, or Br, n = 1 or 2, R2 = H or Ph) and their cyclopropane derivs. (II) were prepared and screened for their fungicidal activity against rice blast Pyricularia oryzae and the brown leaf-spot pathogen Helminthosporium oryzae. I were prepared by Michael addition of 4-benzylidene-2-pyrazolin-5-ones to 3-phenyl-2-mercapto-4-thiazolidones or by addition of 5-benzylidene-3-phenyl-2-mercapto-4-thiazolidinones to 3-methyl-2-pyrazolin-5-one. II were prepared by treatment of I with NaOH and I/KI solution or by Michael addition of 4-benzylidene-2-pyrazolin-5-ones with 5-bromo-3-phenyl-2-mercapto-4-thiazolidone. I were more active than II. Examples of some of the more active I were (R1 and R2 given): H, Ph; o-OH, Ph; p-OH, Ph; o-NO2, Ph; 2,3-HO(Br), Ph; o-OH, H; and o-NO2, H.
IT 110676-58-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and plant fungicidal activity of)
RN 110676-58-9 CA
CN 4-Thiazolidinone, 5-[(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)(4-nitrophenyl)methyl]-3-phenyl-2-thioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 36 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 107:39794 CA
ORIGINAL REFERENCE NO.: 107:6659a,6662a
TITLE: Preparation of hypoglycemic 2,4-thiazolidinediones
INVENTOR(S): Eggler, James F.; Holland, Gerald F.; Johnson, Michael Ross; Volkmann, Robert A.
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 8607056 | A1 | 19861204 | WO 1985-US962 | 19850521 |
| W: FI, HU, NO, SU, US | | | | |
| HU 45247 | A2 | 19880628 | HU 1985-3021 | 19850521 |
| HU 210339 | B | 19950328 | | |
| EP 207605 | A1 | 19870107 | EP 1986-303648 | 19860514 |
| EP 207605 | B1 | 19900207 | | |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE | | | | |
| AT 50256 | T | 19900215 | AT 1986-303648 | 19860514 |
| CA 1279320 | C | 19910122 | CA 1986-509336 | 19860516 |
| IL 78831 | A | 19901129 | IL 1986-78831 | 19860519 |
| DK 8602335 | A | 19861122 | DK 1986-2335 | 19860520 |
| AU 8657580 | A | 19870108 | AU 1986-57580 | 19860520 |
| AU 560179 | B2 | 19870402 | | |
| ZA 8603762 | A | 19880525 | ZA 1986-3762 | 19860520 |
| DD 261154 | A5 | 19881019 | DD 1986-290390 | 19860520 |
| JP 61271287 | A | 19861201 | JP 1986-117127 | 19860521 |
| JP 05086953 | B | 19931214 | | |
| CN 86104075 | A | 19870311 | CN 1986-104075 | 19860521 |
| CN 1007248 | B | 19900321 | | |
| PL 147479 | B1 | 19890630 | PL 1986-259633 | 19860521 |

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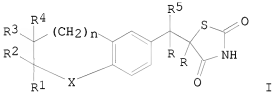
|---|---|---|---|---|---|---|
| US 4703052 | A | 19871027 | US 1986-10081 | | 19861229 |
| FI 8700219 | A | 19870120 | FI 1987-219 | | 19870120 |
| FI 89268 | B | 19930531 | | | |
| FI 89268 | C | 19930910 | | | |
| NO 8700241 | A | 19870320 | NO 1987-241 | | 19870120 |
| NO 166448 | B | 19910415 | | | |
| NO 166448 | C | 19910724 | | | |
| SU 1556540 | A3 | 19900407 | SU 1987-4028918 | | 19870120 |
| AU 8775074 | A | 19871015 | AU 1987-75074 | | 19870702 |
| AU 583991 | B2 | 19890511 | | | |
| IL 83214 | A | 19910718 | IL 1987-83214 | | 19870716 |
| ES 557634 | A5 | 19880812 | ES 1987-557634 | | 19870727 |
| PRIORITY APPLN. INFO.: | | | WO 1985-US962 | W | 19850521 |
| | | | EP 1986-303648 | A | 19860514 |
| | | | IL 1986-78831 | A | 19860519 |

OTHER SOURCE(S): CASREACT 107:39794; MARPAT 107:39794

GI



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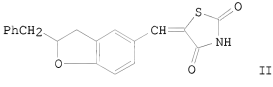


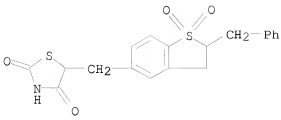
II

AB The title compds. [I; R = H; (R)2 = bond; R1 = H, pyridyl, furyl, thienyl, naphthyl, (un)substituted alkyl, cycloalkyl, Ph, etc.; R2 = H, Me; R3 = H, alkyl, PhCH2, (un)substituted Ph; R4 = H; R1R2, R2R3, R3R4 = alkylene; R5 = H, Me, Et; X = O, S, SO, SO2, etc.; n = 0-2] were prepared as hypoglycemic agents (no data). 2-HOC6H4CHO and BrCH2COPh were refluxed in DMF to give 2-benzoylbenzofuran, which was hydrogenated over Pd/C to give 2-benzyl-2,3-dihydrobenzofuran. The latter was formylated by treatment with TiCl4 and Cl2CHOMe in CH2Cl2 at 0-5° and the resulting 5-formyl derivative was heated at 140° with 2,4-thiazolidinedione and NaOAc to give (benzofuranylmethylene)thiazolidinedione II.

IT 109209-48-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hypoglycemic)

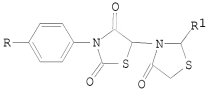
RN 109209-48-5 CA

CN 2,4-Thiazolidinedione, 5-[[2,3-dihydro-1,1-dioxido-2-(phenylmethyl)benzo[b]thien-5-yl]methyl]- (CA INDEX NAME)

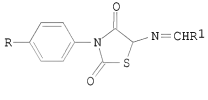


OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 37 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 102:220792 CA
ORIGINAL REFERENCE NO.: 102:34639a,34642a
TITLE: 4-Thiazolidinones as potential antibacterial and antitubercular agents
AUTHOR(S): Desai, N. C.; Shukla, H. K.; Astik, R. R.; Thaker, K. A.
CORPORATE SOURCE: Dep. Chem., Bhavnagar Univ., Bhavnagar, 364 002, India
SOURCE: Journal of the Indian Chemical Society (1984), 61(7), 607-8
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:220792
GI

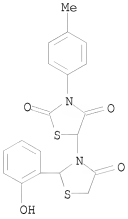


I



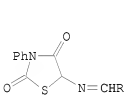
II

AB Thiazolidinones I (R = Me, OMe; R1 = Ph, substituted Ph) were prepared by treating HSCH2CO2H with azomethines II. II were prepared by condensing R1CHO with 5-amino-thiazolidine-2,4-diones. I showed antibacterial activity against Staphylococcus aureus and Escherichia coli, and were tested against H37Rv strain of Mycobacterium tuberculosis.
IT 96569-94-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antibacterial and tuberculostatic activity of)
RN 96569-94-7 CA
CN [3,5'-Bithiazolidine]-2',4,4'-trione, 2-(2-hydroxyphenyl)-3'-(4-methylphenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 38 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 98:160625 CA
ORIGINAL REFERENCE NO.: 98:24379a,24382a
TITLE: Thiazolidinones
AUTHOR(S): Rao, T. N.; Astik, R. R.; Thaker, K. A.
CORPORATE SOURCE: Dep. Chem., Bhavnagar Univ., Bhavnagar, India
SOURCE: Journal of the Institution of Chemists (India) (1982), 54(5), 211-12
CODEN: JOICA7; ISSN: 0020-3254
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 98:160625
GI



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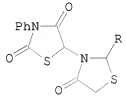


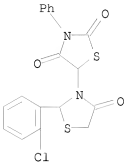
II

AB The reaction of (methyleneamino)thiazolidinediones I (R = Ph, chloro-, methoxy-, or hydroxyphenyl, bromohydroxyphenyl, styryl, alkyl) with HSCH2CO2H gave thiazolidinones II; the min. inhibiting concentration of II (R = 2-ClC6H4) against Myobacterium tuberculosis was 50 μg/mL. I (R = Ph) was heated with HSCH2CO2H in C6H6 at reflux temperature to give II (R = Ph).

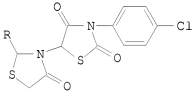
IT 85350-07-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bactericidal activity of)

RN 85350-07-8 CA

CN [3,5'-Bithiazolidine]-2',4,4'-trione, 2-(2-chlorophenyl)-3'-phenyl- (CA INDEX NAME)

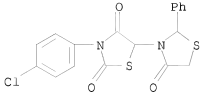


L6 ANSWER 39 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 98:53752 CA
ORIGINAL REFERENCE NO.: 98:8269a,8272a
TITLE: Thiazolidinones. Part X
AUTHOR(S): Rao, T. N.; Astik, R. R.; Thaker, K. A.
CORPORATE SOURCE: Chem. Dep., Bhavnagar Univ., Bhavnagar, 364 002, India
SOURCE: Journal of the Institution of Chemists (India) (1982), 54(4), 183
CODEN: JOICA7; ISSN: 0020-3254
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 98:53752
GI



I

AB Twelve thiazolidinones I [R = (un)substituted Ph, furyl, HC:CHPh, Bu] were prepared by cyclization of 5-amino-3-(4-chlorophenyl)-2,4-thiazolidinedione with RCHO and thioglycolic acid.
IT 84304-62-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 84304-62-1 CA
CN [3,5'-Bithiazolidine]-2',4,4'-trione, 3'-(4-chlorophenyl)-2-phenyl- (CA INDEX NAME)



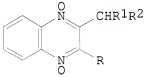
L6 ANSWER 40 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 96:199734 CA
ORIGINAL REFERENCE NO.: 96:32943a,32946a
TITLE: Methylquinoxaline 1,4-dioxides and feed compositions containing them
INVENTOR(S): Benko, Pal; Bozsing, Daniel; Gundel, Janos; Magyar, Karoly
PATENT ASSIGNEE(S): E. Gy. T. Gyogyszervegyeszeti Gyar , Hung.
SOURCE: Fr. Demande, 35 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| FR 2483416 | A1 | 19811204 | FR 1981-10868 | 19810602 |
| FR 2483416 | B1 | 19851227 | | |
| HU 26403 | A2 | 19830928 | HU 1980-1386 | 19800603 |
| HU 184293 | B | 19840730 | | |
| IN 154091 | A1 | 19840915 | IN 1981-CA564 | 19810527 |
| BE 889048 | A1 | 19811202 | BE 1981-10241 | 19810602 |
| DK 8102414 | A | 19811204 | DK 1981-2414 | 19810602 |
| DK 151258 | B | 19871116 | | |
| DK 151258 | C | 19880502 | | |
| FI 8101704 | A | 19811204 | FI 1981-1704 | 19810602 |
| FI 73419 | B | 19870630 | | |
| FI 73419 | C | 19871009 | | |
| NO 8101859 | A | 19811204 | NO 1981-1859 | 19810602 |
| NO 158502 | B | 19880613 | | |
| NO 158502 | C | 19880921 | | |
| SE 8103472 | A | 19811204 | SE 1981-3472 | 19810602 |
| SE 454511 | B | 19880509 | | |
| SE 454511 | C | 19880818 | | |
| AU 8171257 | A | 19811210 | AU 1981-71257 | 19810602 |
| AU 539507 | B2 | 19841004 | | |
| NL 8102660 | A | 19820104 | NL 1981-2660 | 19810602 |
| GB 2078216 | A | 19820106 | GB 1981-16802 | 19810602 |
| GB 2078216 | B | 19840620 | | |
| BR 8103477 | A | 19820224 | BR 1981-3477 | 19810602 |
| US 4373100 | A | 19830208 | US 1981-269720 | 19810602 |
| DD 159333 | A5 | 19830302 | DD 1981-230505 | 19810602 |
| DD 202384 | A5 | 19830914 | DD 1981-241587 | 19810602 |
| PL 130659 | B1 | 19840831 | PL 1981-238597 | 19810602 |
| PL 130660 | B1 | 19840831 | PL 1981-238598 | 19810602 |

| | | | | | |
|---|---|---|---|---|---|
| PL 130661 | B1 | 19840831 | PL 1981-238599 | | 19810602 |
| CA 1177486 | A1 | 19841106 | CA 1981-378885 | | 19810602 |
| RO 85819 | A1 | 19841125 | RO 1981-108876 | | 19810602 |
| RO 85820 | A1 | 19841125 | RO 1981-108877 | | 19810602 |
| RO 85821 | A1 | 19841125 | RO 1981-108878 | | 19810602 |
| PL 132408 | B1 | 19850228 | PL 1981-242731 | | 19810602 |
| CH 648303 | A5 | 19850315 | CH 1981-3587 | | 19810602 |
| PL 133906 | B1 | 19850731 | PL 1981-231451 | | 19810602 |
| IL 63018 | A | 19860131 | IL 1981-63018 | | 19810602 |
| AT 8102464 | A | 19880515 | AT 1981-2464 | | 19810602 |
| AT 387218 | B | 19881227 | | | |
| CS 258108 | B2 | 19880715 | CS 1981-4080 | | 19810602 |
| JP 57024370 | A | 19820208 | JP 1981-85555 | | 19810603 |
| DE 3121978 | A1 | 19820225 | DE 1981-3121978 | | 19810603 |
| DE 3121978 | C2 | 19870619 | | | |
| SU 1192622 | A3 | 19851115 | SU 1981-3294401 | | 19810603 |
| SU 1396957 | A3 | 19880515 | SU 1982-3461110 | | 19820709 |
| SU 1169537 | A3 | 19850723 | SU 1982-3490999 | | 19820916 |
| SU 1176838 | A3 | 19850830 | SU 1982-3491021 | | 19820916 |
| SU 1205765 | A3 | 19860115 | SU 1982-3491000 | | 19821016 |
| SU 1186616 | A1 | 19851023 | SU 1982-3506791 | | 19821028 |
| SU 1189346 | A3 | 19851030 | SU 1983-3608870 | | 19830624 |
| CS 258127 | B2 | 19880715 | CS 1985-5166 | | 19850710 |
| CS 258128 | B2 | 19880715 | CS 1985-5167 | | 19850710 |
| CS 258129 | B2 | 19880715 | CS 1985-5169 | | 19850710 |
| CS 258130 | B2 | 19880715 | CS 1985-5170 | | 19850710 |
| AT 8602884 | A | 19890215 | AT 1986-2884 | | 19861030 |
| AT 388848 | B | 19890911 | | | |
| PRIORITY APPLN. INFO.: | | | HU 1980-1386 | A | 19800603 |
| | | | AT 1981-2464 | A | 19810602 |
| | | | CS 1981-4080 | A3 | 19810602 |

OTHER SOURCE(S): CASREACT 96:199734; MARPAT 96:199734

GI



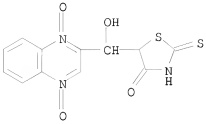
I

AB Quinoxaline dioxides I (R = H, alkyl; R1 = OH, R2 = substituted C, N; R1R2 = substituted methylene, imino) were prepared Thus, treating 2-formylquinoxaline 1,4-dioxide with EtNO2 gave (RS)-I (R = H, R1 = OH, R2 = CHMeNO2) which at 50 mg/kg in feed caused a 137.8% weight gain in pigs.

IT 81707-57-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

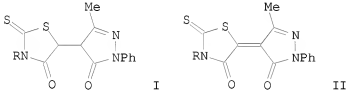
RN 81707-57-5 CA

CN 4-Thiazolidinone, 5-[(1,4-dioxido-2-quinoxalinyl)hydroxymethyl]-2-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 41 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 95:220000 CA
ORIGINAL REFERENCE NO.: 95:36709a,36712a
TITLE: Synthesis and fungitoxicity of some bicyclic compounds
AUTHOR(S): Mittra, P.; Mittra, A. S.
CORPORATE SOURCE: Mayurbhanj Chem. Lab., Ravenshaw Coll., Cuttack, 753 003, India
SOURCE: Journal of the Indian Chemical Society (1981), 58(9), 923-5
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 95:220000
GI

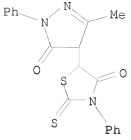


AB Thiazolidinylpyrazolinones I (R = Ph, chloro-, alkoxy-, or methylphenyl) were prepared by different methods and they were treated with iodine in KI to give dehydrogenation products II; I and II exhibited fungicidal activity. A mixture of 5-bromo-3-phenylrhodanine, 1-phenyl-3-methyl-2-pyrazolin-5-one, and NaOAc in EtOH was refluxed to give I (R = Ph).

IT 79887-57-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and fungicidal activity of)

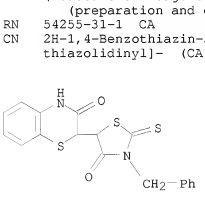
RN 79887-57-3 CA

CN 4-Thiazolidinone, 5-(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)-3-phenyl-2-thioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 42 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 81:152071 CA
ORIGINAL REFERENCE NO.: 81:23705a,23708a
TITLE: Fungicides. XXIV. Reaction of 5-methoxycarbonylmethylidene-2-thioxo(or oxo)-4-thiazolidones with o-aminobenzenethiol and other thiols
AUTHOR(S): Nagase, Hiroshi
CORPORATE SOURCE: Agric. Chem. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1974), 22(1), 42-9
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A novel addition reaction of o-aminobenzenethiol to 5-methoxycarbonylmethylene-2-thioxo-(or oxo)-4-thiazolidones (I) gave 3-methyl (or benzyl)-5-(3-oxo-2,3-dihydro-4H-1,4-benzothiazin-2-yl)-2-thioxo(or oxo)-4-thiazolidones (II). I also reacted with thiols to afford 1:1 adducts (III and IV) in the presence of a catalytic amount of NEt3. Thermal cyclization of the adducts III to II was observed. The adducts IV dissociated into I and thiols when heated above their m.p. or dissolved in acetone or ethanol. Oxidation of II and IV gave the dehydro-compds. V and VI, resp.
IT 54255-31-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
RN 54255-31-1 CA
CN 2H-1,4-Benzothiazin-3(4H)-one, 2-[4-oxo-3-(phenylmethyl)-2-thioxo-5-thiazolidinyl]- (CA INDEX NAME)

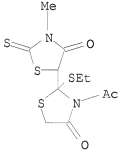


OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

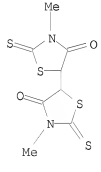
L6 ANSWER 43 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 81:120612 CA
ORIGINAL REFERENCE NO.: 81:19075a,19078a
TITLE: Thiazolidines
INVENTOR(S): Yamaguchi, Kazutaka; Sato, Shigeo; Kurumi, Masateru; Sakurai, Yojiro; Okutome, Toshiyuki
PATENT ASSIGNEE(S): Torii and Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 49030359 | A | 19740318 | JP 1972-70622 | 19720714 |
| JP 50010862 | B | 19750424 | | |

PRIORITY APPLN. INFO.: JP 1972-70622 A 19720714
GI For diagram(s), see printed CA Issue.
AB 2-(Alkylthio)thiazolidines (I; R = alkyl) are condensed with heterocycles containing active CH2 in Ac2O in the presence of a catalyst to give 2-substituted 2-alkylthio-N-acetylthiazolidines, which are converted into N-acetyl-2-thiazolidinylidene derivs.by heating with a catalyst. Thus, 1 g I (R = Et), 1 g N-methylrhodanine, and 0.6 g NaOAc in 10 ml Ac2O was kept at room temperature for 48 hr to give 1.6 g II (R1 = Me, Z = S), which (1 g) was heated with 0.5 g NaOAc in Ac2O for 1 hr, giving 0.7 g III (R1 = Me, Z = S). Also prepared were II (R1 = H, Z = O and S). Similarly, hippuric acid gave 2-ethylthio-2-(2-phenyl-5-oxo-2-oxazolin-4-yl)-3-acetylthiazolidine. Heating the 2-ethylthioderivs. in 10% HCl or with Raney Ni in dioxane gave III (R1 = H, Z = O and S).
IT 53946-33-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with sodium acetate and acetic anhydride)
RN 53946-33-1 CA
CN [2,5'-Bithiazolidine]-4,4'-dione, 3-acetyl-2-(ethylthio)-3'-methyl-2'-thioxo- (CA INDEX NAME)



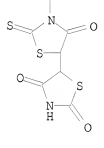
L6 ANSWER 44 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 80:146067 CA
ORIGINAL REFERENCE NO.: 80:23573a,23576a
TITLE: Fungicides. XXV. Addition reaction of dithiocarbamates to fumaronitrile, bis(alkylthio)maleonitrile, 2,3-dicyano-5,6-dihydro-1,4-dithiin, and 4,5-dicyano-2-oxo-1,4-dithiole
AUTHOR(S): Nagase, Hiroshi
CORPORATE SOURCE: Agric. Chem. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1974), 22(3), 505-13
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB 5-Cyanomethyl-2-thioxo-4-aminothiazolines I were prepared by the addition reaction of dithio-carbamates of fumaronitrile. In the reactions of bis(methylthio)maleonitrile, bis(benzylthio)-maleonitrile, 2,3-dicyano-5,6-dihydro-1,4-dithiin, and 4,5-dicyano-2-oxo-1,4-dithiole with dithiocarbamates were obtained 5,5'-bi(2-thioxo-4-aminothiazolines) II. The 4-amino groups of I and II were labile and hytdrolyzed when heated with mineral acids to give 5-cyanomethyl-2-thioxo-4thiazolidones III and 5,5'-bi(2-thioxo-4-thiazolidones) IV, resp. II was also converted to the corresponding Δ5,5'-bi-(2-thioxo-4-iminothiazolidine) V by autoxidn. in the presence of a catalytic amount of triethylamine. 4-Oxo-4'-imino-Δ5,5'-bi(2-thioxo-3-benzylthiazolidine) was prepared by the addition reaction of N-benzyldithiocarbamate to 3-benzyl-5-cyanomethylidene-2-thioxolidone (VI). V and VI gave Δ5,5'-bi(2-thioxo-4-thiazolidones) VII on hydrolysis with mineral acids.
IT 41270-43-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 41270-43-3 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-dimethyl-2,2'-dithioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L6 ANSWER 45 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 79:78671 CA

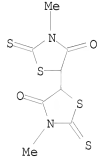
ORIGINAL REFERENCE NO.: 79:12765a,12768a
TITLE: Fungicides. XXIII. Addition of dithiocarbamates and thiolcarbamates to 2-thioxo-, 2-oxo- and 2-imino-5-(methoxycarbonylmethylidene)-4-thiazolidinones
AUTHOR(S): Nagase, Hiroshi
CORPORATE SOURCE: Agric. Chem. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1973), 21(5), 1132-5
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Six Δ5,5'-Bi-4-thiazolidinones I (R = PhCH2, Me; R1 = H, Me, PhCH2, X = O, HN, MeN) were prepared by treating the thiazoles II (R1 = H, Me, PhCH2; X = O, HN, MeN) with RNHCS2H, NEt3 or II (R1 = Me, PhCH2, X = S) with RNHCOSH.H2NR (R = Me, PhCH2). Reduction of I gave the 5,5'-bi-4-thiazolidinones III.
IT 42963-64-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 42963-64-4 CA
CN [5,5'-Bithiazolidine]-2,4,4'-trione, 3'-(phenylmethyl)-2'-thioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

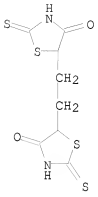
L6 ANSWER 46 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 78:159510 CA
ORIGINAL REFERENCE NO.: 78:25615a,25618a
TITLE: Fungicides. XXII. Reaction of dimethyl acetylenedicarboxylate with dithiocarbamates, thiolcarbamates, thiosemicarbazides, and thiosemicarbazones
AUTHOR(S): Nagase, Hiroshi
CORPORATE SOURCE: Agric. Chem. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1973), 21(2), 279-86
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

GI For diagram(s), see printed CA Issue.
AB Dimethyl acetylenedicarboxylate reacted readily with dithiocarbamates, thiolcarbamates, thiosemicarbazides, and thiosemicarbazones to give 4-thiazolidones [I, R = H, alkyl, PhCH2, NH2; X = S (II), O NR1 (R1 = Me, Ph, substituted-methyleneamino)]. The exo double bond of 4-thiazolidones (II) was highly reactive to dithiocarbamates to give 2,2'-dithioxo-5,5'-bi-4-thiazolidones, which were autoxidized to 2,2'-dithioxo-Δ5,5'-bi-4-thiazolidones in the presence of catalytic amount of amines.
IT 41270-43-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 41270-43-3 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-dimethyl-2,2'-dithioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 47 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 64:48606 CA
ORIGINAL REFERENCE NO.: 64:9090a-b
TITLE: Effect of 5-alkyl substitution on ultraviolet absorption spectra of rhodanine
AUTHOR(S): Turkevich, M. N.; Minka, A. F.
CORPORATE SOURCE: Med. Inst., Lvov
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (1964), 19(5), 3-5
CODEN: FRZKAP; ISSN: 0367-3057
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian
AB With the exception of α-(5-rhodanyl)acetic acid and α,β-bis(5-rhodanyl)ethane, the 5-alkyl substitution of rhodanines decreased the 251-254- and in some cases increased the .apprx.300-mμ band intensities. A 3-substitution (Me, Ph, $CH_2CO_2H$) of 5- alkylrhodanines caused a bathochromic shift of short wavelength maximum 5-Substitution of rhodanine with n-Pr, n-Bu, or n-C5H11 groups increased the intensity of the 350-365-mμ inflection. Practically no 5- or 3-substitution affected the absorption band of the amide group.
IT 4872-69-9, Rhodanine, 5,5'-ethylenedi-
(spectrum of)
RN 4872-69-9 CA
CN Rhodanine, 5,5'-ethylenedi- (7CI, 8CI) (CA INDEX NAME)

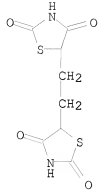


L6 ANSWER 48 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 64:19254 CA
ORIGINAL REFERENCE NO.: 64:3514e-g
TITLE: Synthesis of 4-thiazolidone from dicarboxylic acids
AUTHOR(S): Minka, A. F.
CORPORATE SOURCE: Med. Inst., Lvov
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (1964), 19(3), 47-50
CODEN: FRZKAP; ISSN: 0367-3057
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian

AB α-Bromosuccinic or α,α'-dibromoadipic acids were mixed with dithiocarbaminates (CA 60, 5476a), the mixture was neutralized with NaHCO3, and left for 4-24 hrs., the solution was acidified and brought to boiling. On cooling, derivs. of 5-carboxymethyl-4-thiazolidone (I) precipitated from the solution, which were washed with water and alc. and recrystd. By condensation of bromo acids with thiourea the reaction was performed in MeOH solution with an addition of equivalent weight of AcONa and the reaction mixture was boiled 3-4 hrs. Prepared were (acid, % yield, and m.p. given): 2-imino-4-oxo-5-thiazolidineacetic, 80, 235-7°; 2,4-dioxo-5-thiazolidineacetic, 80.5, 164-7°; 4-oxo-2-thioxo-5-thiazolidineacetic, 52.9, 151°; 4-oxo-3-phenyl-5-thiazolidineacetic, 35.8, 125-9°; 4-oxo-3-methyl-5-thiazolidineacetic, 75.6, 127°; and 4-oxo-2-thioxo-3,5-thiazolidinediacetic, 44, 147°. Also the N-substituted α,β-di(5-rhodanyl-5-ethanes were prepared (substituent, % yield, and m. p.): H, 54.8, 260-2°; $CH_2CO_2H$, 35, 268°; Me, 26.5, 201°; Ph, 22.7, 240. Di(5-thiazolidinyl-2,4-dione-2,4)ethane, m. 255°, was obtained in 37.5% yield.

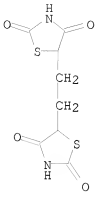
IT 3805-30-9P, 2,4-Thiazolidinedione, 5,5'-ethylenebis-
RL: PREP (Preparation)
(preparation of)

RN 3805-30-9 CA
CN 2,4-Thiazolidinedione, 5,5'-ethylenebis- (7CI, 8CI) (CA INDEX NAME)

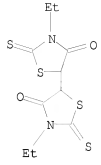


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

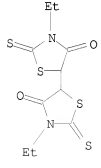
L6 ANSWER 49 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 63:38484 CA
ORIGINAL REFERENCE NO.: 63:6816e-f
TITLE: Synthesis of thiazolidone derivatives with biological interest. XXII. Ultraviolet absorption spectra of pseudothiohydantoins and 2,4-thiazolidinediones
AUTHOR(S): Turkevich, N. M.; Minka, A. F.
CORPORATE SOURCE: Med. Inst., L'vov
SOURCE: Zhurnal Obshchei Khimii (1965), 35(5), 884-5
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB cf. CA 52, 2845d; 62, 16224d. Absorption maxima (uv) were reported for pseudothiohydantoins and thiazolidine-2,4-diones with 5-substituents: Me, Et, Pr, iso-Pr, Bu, Am, C14H29, as well as 5-carboxy. The pseudothiohydantoins retained the 241-9 mμ band of thiourea; the amide band of both pseudothiohydantoins and thiazolidinedione and the thiono band of the latter compds. were found to be weak among these compds.
IT 3805-30-9, 2,4-Thiazolidinedione, 5,5'-ethylenebis-
(spectrum of)
RN 3805-30-9 CA
CN 2,4-Thiazolidinedione, 5,5'-ethylenebis- (7CI, 8CI) (CA INDEX NAME)



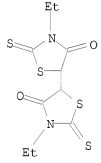
L6 ANSWER 50 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 60:16673 CA
ORIGINAL REFERENCE NO.: 60:2922b-d
TITLE: Polypyrazoles
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Berlin, A. M.
CORPORATE SOURCE: Inst. Heteroorg. Compds., Moscow
SOURCE: Doklady Akademii Nauk SSSR (1963), 152(5), 1108-10
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB (CH2)4(CHN2)2 and p-C6H4(C.tplbond.CH)2 (I) mixed in Et2O solution and kept 15 days until the orange color had faded to light yellow gave 100% yellow precipitate of II [R = (CH2)4, R' = p-C6H4], m. 440° (reduced viscosity 0.3). Similar reaction with diacetylene gave in 5 days yellow II [R = (CH2)4, R' absent], m. 350-70°, along with a product with lower-mol.-weight and m. 250° (reduced viscosities were 0.2 and 0.06, resp.). Passage of N2O3 into N,N'-diacetylxylylenediamine in Ac2O-AcOH gave 80-90% N,N'-dinitroso derivative, m. 103-4°, which in Et2O was treated with MeONa-MeOH and then with I, and gave in 8 days yellow II (R = R' = p-C6H4), m. >500°, reduced viscosity 0.24. Absorption spectra of the polymers contained a wide band at 3100-300 cm.-1, due to the NH group of the pyrazole ring, involved in strong association
IT 41270-44-4P, 5,5'-Birhodanine, 3,3'-diethyl-
RL: PREP (Preparation)
(preparation of)
RN 41270-44-4 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-diethyl-2,2'-dithioxo- (CA INDEX NAME)



L6 ANSWER 51 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 60:16672 CA
ORIGINAL REFERENCE NO.: 60:2921h,2922a-b
TITLE: Preparation and reactions of some rhodanines
AUTHOR(S): Nederlof, A.
CORPORATE SOURCE: "DALCO", Soestduinen, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1963), 82, 75-89
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB cf. CA 58, 4534f. 3-Ethylrhodanine and 2,4-dinitrobenzaldehyde condensed in HOAc and NaOAc, in HOAc alone, or in EtOH containing piperidine and the product extracted with EtOAc gave I (R = Et, R' = 2,4-dinitrophenyl), m. 135.5°, and II (R = Et) (IV), m. 252-2.5°, orange. IV reduced with Zn in boiling HOAc and crystallized from CHCl3 gave 45% III (R = Et), m. 155-7°; it autoxidized in air to IV. III (R = allyl), m. 121.5-3.5°, and III (R = EtO2CCH2), m. 169-70°, were made similarly. 2,4-(O2N)2C6H3CH:NPh (1.35 g.) 0.86 g. 3-allylrhodanine in 5 ml. HOAc heated 1 hr. on a steam bath and cooled gave I (R = allyl, R' = 2,4-dinitrophenyl), m. 85-5.5° (Me2CO). I (R = Et, R' = 2-hydroxy-5-nitrophenyl), m. 233-4.5°, was made similarly.
IT 41270-44-4P, 5,5'-Birhodanine, 3,3'-diethyl-
RL: PREP (Preparation)
(preparation of)
RN 41270-44-4 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-diethyl-2,2'-dithioxo- (CA INDEX NAME)

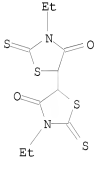


L6 ANSWER 52 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 59:48310 CA
ORIGINAL REFERENCE NO.: 59:8719c-e
TITLE: Preparation and reactions of some rhodanines
AUTHOR(S): Nederlof, A.
CORPORATE SOURCE: "DALCO," Soestduinen, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1963), 82, 75-89
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 59:48310
GI For diagram(s), see printed CA Issue.
AB cf. CA 58, 4534f. 3-Ethylrhodanine and 2,4-dinitrobenzaldehyde condensed in HOAc and NaOAc, in HOAc alone, or in EtOH containing piperidine and the product extracted with EtOAc gave I (R = Et, R' = 2,4-dinitrophenyl), m. 135.5° and II (R = Et) (IV), m. 252-2.5°, orange. IV reduced with Zn in boiling HOAc and crystallized from CHCl3 gave 45% III (R = Et), m. 155-7°; it autoxidized in air to IV. III (R = allyl), m. 121.5-3.5°, and III (R = EtO2CCH2), m. 169-70°, were made similarly. 2,4-(O2N)2C6H3CH:NPh (1.35 g.) and 0.86 g. 3-allylrhodanine in 5 ml. HOAc heated 1 hr. on a steam bath and cooled gave I (R = allyl, R' = 2,4-dinitrophenyl), m. 85-5.5° (Me2CO). I (R = Et, R' = 2-hydroxy-5-nitrophenyl), m. 233-4.5°, was made similarly.
IT 41270-44-4P, 5,5'-Birhodanine, 3,3'-diethyl-
RL: PREP (Preparation)
(preparation of)
RN 41270-44-4 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-diethyl-2,2'-dithioxo- (CA INDEX NAME)



L6 ANSWER 53 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 58:27231 CA
ORIGINAL REFERENCE NO.: 58:4534f-h
TITLE: Chemistry of rhodanine and its derivatives. Preliminary communication
AUTHOR(S): Nederlof, A.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1962), 81, 578-80
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal

LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Impure 5-(2,4-dinitrobenzylidne)-3-ethylrhodanine, m. 133°, was prepared by condensing 3-ethylrhodanine with 2,4-dinitrobenzaldehyde. Refluxing the impure product with EtOAc gave the more pure compound and presumably I (R = Et), m. 252-2.5°. The addition of large quantities of p-MeC6H4SO2Cl accelerated the formation of orange I (R = Et), as well as of I (R = CH2CH:CH2), m. 190.5-1°, and I (R = CH2CO2Et), m. 183-4°. These compds. reduced to readily autoxidized II (R = Et), light yellow, m. 155-7°, II (R = CH2CH:CH2), yellow, m. 121.5-3.5°, and II (R = CH2CO2Et), nearly colorless, m. 169-70°, resp. The "anil method" of rhodanine condensation gave purer compds. with higher yields. 3-Aminorhodanine reacted in boiling EtOH with p-nitrobenzaldehyde to give orange 3-amino-5-(p-nitrobenzylidene)rhodanine, m. 230-1°, not the yellow 3-(p-nitrobenzylidenamino)rhodanine as reported by Ueda and Ohta (CA 52, 401d).
IT 41270-44-4P, 5,5'-Birhodanine, 3,3'-diethyl-
RL: PREP (Preparation)
(preparation of)
RN 41270-44-4 CA
CN [5,5'-Bithiazolidine]-4,4'-dione, 3,3'-diethyl-2,2'-dithioxo- (CA INDEX NAME)



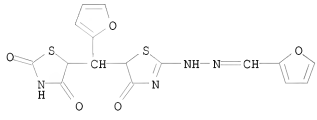
L6 ANSWER 54 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 52:45396 CA
ORIGINAL REFERENCE NO.: 52:8122i,8123a-b
TITLE: Synthesis of derivatives of thiazolidone with biological interest. VI. Reaction of condensation of monochloroacetic acid with thiosemicarbazide in the presence of aldehydes
AUTHOR(S): Vladzimirskaya, E. V.
CORPORATE SOURCE: Med. Inst., Lvov
SOURCE: Zhurnal Obshchei Khimii (1957), 27, 2898-901
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 52, 7285g. Refluxing 1.8 g.thiosemicarbazide with 0.04-0.05 mole aldehyde in 40 ml. AcOH 10 min., adding 1.9 g. ClCH2CO2H and refluxing 50 min., cooling, and adding NaOAc gave a precipitate of diarylidene-2,4-thiazolidinedione 2-hydrazones; if the aldehyde was furfural, the refluxing was continued 2 hrs. Thus were prepared 5-benzylidene-2,4-thiazolidinedione 2-benzylidenehydrazone, 75%, m.

283°; the 2,5-di(p-anisylidene) analog, 53%, m. 241°; the 2,5-bis(o-chlorobenzylidene) analog, 55%, decompose 275-6°; the 2,5-bis(m-nitrobenzylidene) analog, 64%, m. 265-6°; 2,5-difurfurylidene analog, 38.2%, decompose 200°; 2,5-bis(p-dimethylaminobenzylidene) analog, 25.3%, m. 230°. Similar reaction with salicylaldehyde gave 2,4-thiazolidinedione 2-salicylidenehydrazone, 32%, m. 254-5°. The products were bacteristatic against the tuberculosis organism.

IT 856943-98-1P, 2-Furaldehyde, 2-azine with 5,5'-furfurylidenebis-2,4-thiazolidinedione
RL: PREP (Preparation)
(preparation of)

RN 856943-98-1 CA

CN 2-Furancarboxaldehyde, 2-[5-[(2,4-dioxo-5-thiazolidinyl)-2-furanylmethyl]-4,5-dihydro-4-oxo-2-thiazolyl]hydrazone (CA INDEX NAME)



L6 ANSWER 55 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 50:56243 CA

ORIGINAL REFERENCE NO.: 50:10580i,10581a-i,10582a-i

TITLE: Trinuclear merocyanine dyes

INVENTOR(S): Knott, Edward B.

PATENT ASSIGNEE(S): Eastman Kodak Co.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2728766 | | 19551227 | US 1953-343809 | 19530320 |

GI For diagram(s), see printed CA Issue.

AB Dyes were prepared of the general formula I, in which R and R''' represent alkyl groups, R' is H or alkyl, R'' is H, alkyl, aryl, or OR, J and J' are the atoms necessary to complete a thiazolidinone ring, Q and Z are the atoms necessary to complete heterocyclic rings, and n and m are integers. 3-Carbethoxymethyl-5-(1-ethoxyethylidene)rhodanine was synthesized by refluxing 4.38 g. 3-carbethoxymethylrhodanine, 6.0 ml. MeC(OEt)3, and 25.0 ml. Ac2O for 1 hr. The product was obtained in 85% yield, m. 105° (from ligroine). The following dyes (m.p., yield, color, sensitivity maximum to gelatino Ag chlorobromide emulsion and to gelatino Ag bromiodide emulsion) were prepared: 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-4-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-3-methyl-5-thiazolidinone, m. 241°, —, dark-green, 645 and 700 mμ, 735 mμ; 2-[2-(3-carbethoxy-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-4-[2-(3-ethyl-2-benzoxazolinylidene)ethylidene]-3-methyl-

5-thiazolidinone, m. 231°, -, green, 645 and 700 mμ, 700 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-3-ethyl-4-thiazolidinone, m. 197°, olive-green, 590 and 700 mμ, 580 and 700 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzoxazolinylidene)ethylidene]-3-ethyl-4-thiazolidinone, m. 223°, -, olive-green, 630 and 690 mμ, 580 and 710 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(4,5-diphenyl-3-ethyl-4-thiazolin-2-ylidene)ethylidene]-3-ethyl-4-thiazolidinone, m. 232°, -, green, 690 and 740 mμ, 800 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2- ethoxyethylidene]-4-[2-(4,5-diphenyl-3-ethyl-4-thiazolin-2-ylidene)ethylidene]-3-methyl-5-thiazolidinone, m. 249° (softens 190°), -, green, 750 mμ, -; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)-ethylidene]3-phenyl-4-thiazolidinone, m. 236°, -, olive-green, 620 and 690 mμ, 690 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-(3-ethyl-4,5-diphenyl-4-thiazolin-2-ylidene)-3-ethyl-4-thiazolidinone, m. 250°, -, mauve, 625 mμ, 620 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-3-ethyl-5-[2-(1,3,3-trimethyl-2-indolinylidene)ethylidene]-4-thiazolidinone, m. 212°, 33%, green, 630 and 680 mμ, 600 and 690 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzoxazolinylidene)-ethylidene]-4-thiazolidinone, m. 189°, 31%, violet-brown, 610 and 690 mμ, 620 and 690 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-4-thiazolidinone, m. 221°, 61%, green, 680 mμ, 690 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-2(H)-quinolylidene)ethylidene]-4-thiazolidinone, m. 216°, 40%, green, 635 and 730 mμ, 685 and 730 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-methyl-2(3)-thiazolidinylidene)ethylidene]-4-thiazolidinone, m. 211°, 33%, green, 630 and 690 mμ, 640 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-methyl-2-thiazolidinylidene)propylidene]-4-thiazolidinone, m. 194-5°, 30% green, 650 mμ, 670 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-2(1H)-β-naphthothiazolylidene)ethylidene]-4-thiazolidinone, m. 230°, 40%, green, 690 mμ, 700 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-2(1H)-β-naphthothiazolylidene)-1-methylethylidene]-4-thiazolidinone, m. 226°, 23%, green, 710 mμ, 730 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-4(1H)-quinolylidene)ethylidene]-4-thiazolidinone, 210°, 30%, green-gold, 770 mμ, 780 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzoselenazolinylidene)ethylidene]-4-thiazolidinone, m. 221°, 37%,

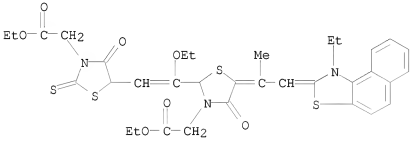
green, 670 mμ, 680 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-2(1H)-pyridylidene)ethylidene]-4-thiazolidinone, m. 179°, 62%, green, 710 mμ, 690 and 740 mμ; 3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl-4(1H)-pyridylidene)ethylidene]-4-thiazolidinone, m. 213°, 33%, green, 740 mμ, 740 mμ; 5-[2-(1,3-diethyl-2-benzimidazolinylidene)ethylidene]-3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-4-thiazolidinone, m. 212°, 28%, green, 690 mμ, 700 mμ; 5-[2-(4,-5-diphenyl-3-ethyl-4-oxazolin-2-ylidene)ethylidene]-3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-4-thiazolidinone, m. 151°, 38%, green-bronze, 570 and 680 mμ, 690 mμ; 5-[2-(4,5-diphenyl-3-ethyl-4-thiazolin-2-ylidene)ethylidene]-3-carbethoxymethyl-2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-4-thiazolidinone, m. 192°, 37%, green, 680 mμ, 685 and 735 mμ; 3-allyl-2-[2-(3-allyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)-ethylidene]-4-thiazolidinone, m. 227°, 39%, green, 690 mμ, 690 mμ; 3-allyl-2-[2-(3-allyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(1-ethyl- 2(1H)-β-naphthothiazolylidene)-1-ethylethylidene]-4-thiazolidinone, m. 209°, 39%, green, 735 mμ, -; 3-allyl-2-[2-(3-allyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)-1-ethylethylidene]-4-thiazolidinone, m. 209°, 45%, green, 690 mμ, 690 mμ; 3-allyl-2-[2-(3-allyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[1-ethoxy-2-(3-ethyl-2-benzothiazolinylidene)-ethylidenel-4-thiazolidinone, m. 200°, 12%, green, 690 mμ, 690 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-methoxyethylidene]-3-ethyl-5-[2-(3-ethyl-2-benzoxazolinylidene)ethylidene]-4-thiazolidinone, m. 244°, 51% green, 690 mμ, 690 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-methoxyethylidene]-4-[2-(3-ethyl-2-benzothiazolidinylidene)ethylidene]-3-methyl-5-thiazolidinone, m. 215°, 31%, green, 730 mμ, 730 mμ; 2-[2-(3-carbethoxymethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-methoxyethylidene]-4-[2-(3-ethyl-2-benzoxazolinylidene)-ethylidene]-3-methyl-5-thiazolidinone, m. 235°, 18%, green, 700 mμ, 710 mμ; 3-allyl-2-[2-(3-ethyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-ethoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)-1-methylethylidene]-4-thiazolidinone, m. 212°, 10%, green, 685 mμ, 640 and 680 mμ; and 3-allyl-2-[2-(3-allyl-4-oxo-2-thiono-5-thiazolidinylidene)-2-methoxyethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)-1-ethyl-ethylidene]-4-thiazolidinone, m. 199°, 45%, green, 620 and 680 mμ, 620 and 680 mμ. From 4-(1-ethoxyethylidene)-2-ethylthio-2-thiazolin-5-one (prepared by heating 1.0 g. N-dithiocarbethoxyglycine, 10 ml. Ac2O, and 5.0 ml. MeC-(OEt)3) and the appropriate quaternary salt were prepared: 2-[2-ethoxy-2-(2-ethylthio-5-oxo-2-thiazolin-4-ylidene)ethylidene]-4-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-3-methyl-5-thiazolidinone, m. 251°, green, 640 and 710 mμ; 2-[2-ethoxy-2-(2-ethylthio-5-oxo-2-thiazolin-4-ylidene)ethylidene]-5-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-3-ethyl-4-thiazolidinone, m. 227°, dark-green, 540 and 690 mμ, 710 mμ. 4-(1-Ethoxyethylidene)-2-phenyl-2-oxazolin-5-one and a quaternized

merocyanine dye yielded 2-[2-ethoxy-2-(5-oxo-2-phenyl-2-oxazolin-4-ylidene)ethylidene]-4-[2-(3-ethyl-2-benzothiazolinylidene)ethylidene]-3-methyl-5-thiazolidinone, m. 277°, green, 700 mμ. Refluxing 0.9 g. of 3-carbethoxymethyl-5-[1-ethoxy-2-(3-ethyl-2-benzothiazolinylidene)ethylidene]rhodanine in 20 ml. EtOH with 0.45 g. KOH in 10 ml. H2O on the steam bath for 75 min., followed by acidification with HCl, yielded 0.6 g. 3-carboxymethyl-5-[(3-ethyl-2-benzothiazolinylidene)acetyl]-4-hydroxy-2-thiono-4-thiazoline, m. 220°, rust, 510 mμ. Similarly prepared were: 3-carboxymethyl-5-[(1-ethyl-2(1H)-quinolylidene)acetyl]-4-hydroxy-2-thiono-4-thiazoline, m. 237°, violet, 520 mμ, and 3-allyl-5-[(3-ethyl-2-benzothiazolinylidene)acetyl]-4-hydroxy-2-thiono-4-thiazoline, m. 199°, red, 510 mμ, 510 mμ.

IT 857981-74-9P, 3-Thiazolidineacetic acid, 5-[2-(1-ethylnaphtho[1,2-d]thiazolin-2-ylidene)-1-methylethylidene]-2'-thioxo-2,5'-(2-ethoxyacetylene)bis[4-oxo-, diethyl ester
RL: PREP (Preparation)
(preparation of)

RN 857981-74-9 CA

CN 3-Thiazolidineacetic acid, 2-[1-ethoxy-2-[3-(2-ethoxy-2-oxoethyl)-4-oxo-2-thioxo-5-thiazolidinyl]ethenyl]-5-[2-(1-ethylnaphtho[1,2-d]thiazol-2(1H)-ylidene)-1-methylethylidene]-4-oxo-, ethyl ester (CA INDEX NAME)



L6 ANSWER 56 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 50:44536 CA

ORIGINAL REFERENCE NO.: 50:8605b-d

TITLE: Synthesis of derivatives of thiazolidone having a biological interest. II. Derivatives of 2,4-thiazolidinedione 2-hydrazone preparable from p-acetamidobenzaldehyde thiosemicarbazone

AUTHOR(S): Vladzimirskaya, E. V.; Turkevich, N. M.

CORPORATE SOURCE: Med. Inst., Lvov

SOURCE: Zhurnal Obshchei Khimii (1955), 25, 2150-4
CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

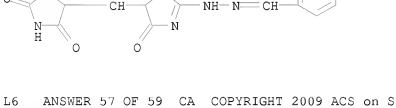
AB cf. C.A. 49, 14737i. Heating 5 g. p-acetamidobenzaldehyde thiosemicarbazone with 2.35 g. ClCH2CO2H and 20 ml. AcOH with 25-27 millimoles of an aldehyde 30 min. at reflux, followed by cooling and adding aqueous NaOAc gave the 5-arylydine derivs. of 2,4-thiazolidinedione 2-(p-acetamidobenzylidene)hydrazones. Thus were prepared: 92.4% 2,4-thiazolidinedione 2-(p-acetamidobenzylidene)hydrazone, decompose 294°; 80% 5,5'-benzylidenebis[2-[2-(p-

acetamidobenzylidene)hydrazono]-4-thiazolidinone} (I), m. 263°; 5-anisylidene-2,4-thiazolidinedione 2-(p-acetamidobenzylidene)-hydrazone, decompose 230°; 89% 5-(o-chlorobenzylidene) analog, decompose 230°; 5-cinnamylidene analog, 85%, decompose 190°; the 5,5'-salicylidene analog of I, 86%, decompose 230°; 82% 5-(p-acetamidobenzylidene) analog, decompose 275°.

IT 857961-51-4P, 2,4-Thiazolidinedione, 5,5'-salicylidenebis-, 2-azine with 4'-formylacetanilide
RL: PREP (Preparation)
(preparation of)

RN 857961-51-4 CA

CN Acetamide, N-[4-[[2-[5-[(2,4-dioxo-5-thiazolidinyl)(2-hydroxyphenyl)methyl]-4,5-dihydro-4-oxo-2-thiazolyl]hydrazinylidene]methyl]phenyl]- (CA INDEX NAME)



L6 ANSWER 57 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 49:84208 CA

ORIGINAL REFERENCE NO.: 49:15862g-i,15863a-d

TITLE: 5-Alkoxymethylenerhodanines and their reactions with rhodanines

AUTHOR(S): Lo, Chien-Pen; Croxall, W. J.

CORPORATE SOURCE: Rohm & Haas, Philadelphia, PA

SOURCE: Journal of the American Chemical Society (1954), 76, 4166-9
CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 49:84208

AB The reaction of rhodanines unsubstituted in the 5 position (I) with alkyl orthoformates in the presence of Ac2O yielded 5-alkoxymethylenerhodanines (II). The condensation of I and II in the presence of a tertiary amine gave the amine salt of 5,5'-methylidynebisrhodanines (III) which upon treatment with HCl yielded the III. The acidicic property of the III is believed to be the result of the stabilization of the enolate ion by resonance. That the enolate ions are actually hybrids of 2 extreme resonant forms is supported by expts. This 2-step synthesis furnishes a satisfactory method of preparation of 3,3'-unsym. substituted 5,5'-methylidynebisrhodanines which have not been previously reported in the literature. 3-(3,5,5-Trimethylhexyl)rhodanine (IV), m. 41-3°, was prepared in 59% yield by the method of Redemann, et al. (C.A. 42, 1567d). Rhodanine (140 g.), 200 cc. HC(OEt)3, and 300 cc. Ac2O refluxed 17.5 h., the mixture cooled, and the wine-red crystallization deposit (118 g.), m. 152-5°, washed with AcOH and recrystd. from AcOH gave 60% 5-ethoxymethylenerhodanine (V), m. 157-8°. Similarly was prepared

the 5-methoxymethylene analog, m. 197-8°, in 35% yield. By the same method were prepared the following analogs (m.p. and % yield given): 3-Me derivative (VI) of V, 132-3°, 57; the 5-ethoxymethylene derivative of IV, 39-41°, 47; the 3-Phderiv. (VII) of V, 153-5°, 68; and 3,3'-ethylenebis(5-ethoxymethylenerhodanine) (VIII), 207-9°, 59. VI (4 g.), 3 g. 3-methylrhodanine (IX), 3 cc. Et3N, and 20 cc. Me2CO refluxed 1 h., the mixture cooled, and the product washed with C6H6 and dried yielded 5.5 g. Et3N salt (X) of 5,5'-methylidynebis(3-methylrhodanine) (XI), m. 228-9°. Similarly were prepared the following amine salts of XI (amine, m.p., and % yield given): BuEtCHCH2NMe2, 146-7°, 44; PhCH2NMe2 (XII), 216-17°, 34; (HOCH2CH2)3N, 188-90°, 45; 1-methylmorpholine, 243-4°, 10; all amine salts were crystalline and melted with decomposition, they were all purple except XII which was green. X (3.3 g.) in 100 cc. AcOH treated with 1 cc. concentrated HCl, the mixture heated on the steam bath and then cooled, and the resulting solid washed with AcOH gave 2.5 g. (100%) XI, red solid, m. 173-4°. XII (1 g.) gave similarly with HCl 0.7 g. XI, m. 173-4°. VI (4 g.), 4 g. 3-phenylrhodanine (XIII), 3 cc. Et3N, and 20 cc. Me2CO refluxed 1.5 h. yielded 6.4 g. (88%) Et3N salt of 3-methyl-3'-phenyl-5,5'-methylidynebisrhodanine (XIV), purple crystals, m. 230-1° (decomposition), which treated with HCl yielded 2.3 g. (98%) XIV, red solid, m. 177.5-8.5°. VII condensed with IX in the presence of Et3N yielded 94% Et3N salt of XIV, m. 231° (decomposition), which treated with HCl gave XIV, m. 148-9°. VIII (3 g.), 3 g. IX, 3 cc. Et3N, and 30 cc. Me2CO gave similarly 4 g. (50%) bis-Et3N salt of 3,3'-ethylenebis[5-(2-thioxo-4-oxo-3-methyl-5-thiazolidinylmethylene)rhodanine] (XVI), purple solid, m. 235-6° (decomposition), which treated with HCl yielded XVI, m. 122°. VIII (3 g.), 4 g. XIII, 3 g. Et3N, and 30 cc. Me2CO gave in the same manner 3.4 g. (37%) bis-Et3N salt of 3,3'-ethylenebis[5-(2-thioxo-4-oxo-3-phenyl-5-thiazolidinylmethylene)rhodanine] (XVII), brown solid, m. 253-4° (decomposition), which treated with HCl gave XVII, red solid, m. 197° (decomposition).

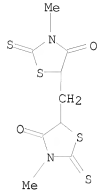
IT 854181-97-8P, Benzylamine, N,N-dimethyl-, compound with 5,5'-methylidynebis[3-methylrhodanine]
RL: PREP (Preparation)
(preparation of)

RN 854181-97-8 CA

CN Benzylamine, N,N-dimethyl-, compd. with 5,5'-methylidynebis[3-methylrhodanine] (5CI) (CA INDEX NAME)

CM 1

CRN 854181-96-7
CMF C9 H10 N2 O2 S4



CM 2

CRN 103-83-3
CMF C9 H13 N

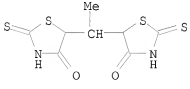
L6 ANSWER 58 OF 59 CA COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 47:3315 CA
ORIGINAL REFERENCE NO.: 47:566e-i
TITLE: Rhodanine derivatives in reactions of the Michael type
AUTHOR(S): Bradsher, Charles K.; Brown, Frances C.; Grantham, R. Jack
CORPORATE SOURCE: Duke Univ., Durham, NC
SOURCE: Journal of the American Chemical Society (1951), 73, 5377-9
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. C.A. 44, 4464i. AcH (8.8 g.) in 100 cc. EtOH added to 53.5 g. rhodanine (I) in 90 cc. 5 M NH4OH at 70°, then 30 g. NH4Cl in a small amount of water, the mixture stirred 80 min. at 70°, cooled, and poured into 1.2 l. N HCl yielded 19.7 g. 1,1-bis(2-thio-4-ketotetrahydro-5-thiazolyl)ethane (II), pale yellow needles from EtOH, m. 246-9° (decomposition). I (26.6 g.) in 120 cc. AcOH treated with 4.4 g. AcH and 40 g. anhydrous NaOAc, the mixture refluxed 3-5 hrs., and poured into 600 cc. cold water yielded 16.6 g. II, pale yellow prisms from AcOH, m. 246-8°. 5-Ethylidenerhodanine in 80 cc. EtOH added to 40 cc. EtOH at 65-70° containing 2.2 g. I, 1.6 cc. NH4OH, and 3 cc. water, 5 min. later 1.6 g. NH4Cl added, the mixture heated 2 hrs. at 65-70°, cooled, and poured into 650 cc. ice-cold N HCl yielded 3.3 g. II, pale yellow crystals from alc., m. 247-8.5°. II (14.6 g.) in 125 cc. water containing 30 g. NaOH refluxed 3 hrs., the cooled solution acidified with HCl and extracted with Et2O and CH2Cl2, the solvents removed on the steam bath, the residue (probably crude α,α'-disulfhydryl-β-methylglutaric acid) dissolved in 300 cc. 10% NaOH, heated 70 hrs. on the steam bath with the portionwise addition

of 50 g. Raney Ni-Al alloy, the alkaline solution decanted, strongly acidified, and extracted with Et2O yielded 2.3 g. β-methylglutaric acid, fine white needles from C6H6-petr. ether and then cyclohexane, m. 84-4.5°; dianilide, m. 213.5-14° (fine white needles from EtOH); di-p-toluide, fine white needles from EtOH, m. 221-21.5°. For other compds. of the type [OC.NH.C(:S).S.CH]2CHR obtained by the NH4OH-NH4Cl method, R, yield (%), and m.p. are: Et, Et, 33, 208-12°; Pr, 55, 217.5-18.5°; Bu, 38, 190-5°; Am, 27, 189-90.5°; hexyl, 33, 187-90°; C9H19, 22, 167-8°.

IT 533885-79-9P, Rhodanine, 5,5'-ethylidenedi-
RL: PREP (Preparation)
(preparation of)

RN 533885-79-9 CA

CN 4-Thiazolidinone, 5,5'-ethylidenebis[2-thioxo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 59 OF 59 CA COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 45:38208 CA

ORIGINAL REFERENCE NO.: 45:6519c-i,6520a-b

TITLE: Cyanine dyes as photographic emulsion sensitizers

INVENTOR(S): Doyle, Frank P.

PATENT ASSIGNEE(S): Ilford Ltd.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| GB 640127 | | 19500712 | GB 1948-13542 | 19480519 |

AB Cyanine dyes are prepared by condensing, in the presence of a base, a compound of the general formula XCH:C(R')CHO, where R' is CN or CO2R, X is RS or RNH, and R is an alkyl or aryl group, with a heterocyclic N compound containing a reactive methylene group. Thus, HC(ONa):CHCO2Et (I) 10 in H2O 100 parts was added to PhNH2 7, Ac2O 40, and H2O 160 parts to give HC(:NPh)CH2CO2Et (II), yellow solid, m. 105°. To II 30, dry Et2O 100, and HCO2Et 11.7 parts is added powdered Na 3.62 under Et2O 200 parts, the whole is refluxed 8 hrs., poured into H2O under CO2, the Et2O layer separated, the H2O layer extracted with Et2O, and the combined Et2O solution dried, concentrated, and distilled to give HC(:NPh)CH(CHO)CO2Et (III), b8 197°, yellow crystals (no m.p. given). I 14, EtSH 25, and dry Et2O 25 parts were saturated with HCl, the mixture was kept overnight, poured into dilute Na2CO3 solution, the Et2O separated, the H2O layer extracted, the Et2O layers combined, dried, concentrated, and distilled to give EtSCH:CHCO2Et (IV), b30 160-5°; IV 11, HCO2Et 6, and

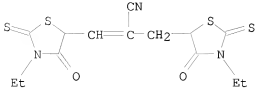
Na powder 1.5 parts in dry Et2O were refluxed 24 hrs. to give EtSCH:C(CHO)CO2Et (V), b7 110-35°. HC(ONa):CHCO2Pr 13 in H2O 66 was added with stirring to PhNH2 8 in AcOH 43 and H2O 186 parts to give HC(:NPh)CH2CO2Pr (VI), sticky yellow solid; VI 51 in dry Et2O 100 and HCO2Et 20 parts was added in portions to Na powder 5 in dry Et2O 200 parts and the whole was refluxed 8 hrs. to give HC(:NPh)CH(CHO)CO2Pr (VII), yellow solid, m. 132°. In a similar fashion was prepared from HC(ONa):CHCN, HC(:NPh)CH2CN, yellow solid, m. 119° and HC(:NPh)CH(CHO)CN (VIII), yellow solid, m. 183° (from EtOH). III 10, 2-methylbenzothiazole-EtI (IX) 30, and C5H5N 200 parts were refluxed 3 min., 6 parts Et3N was added, the whole cooled, and poured into H2O to give bis-2 - (3 - ethylbenzothiazole) - γ - carbethoxypentamethinecyanine iodide (X), dark green crystals, m. 230° (with decomposition). (All dyes were recrystd. from MeOH and melted with decomposition) X was also obtained by refluxing V 2,2-methylbenzothiazole 6, and C5H5N 15 parts for 15 min. and pouring the whole into H2O. When incorporated in a gelatin-AgBr emulsion, X imparts a band of sensitivity extending to 6800 A. with a maximum at 6400 A. In similar fashion, III and quinaldine-EtI gave bis-2-(1-ethylquinoline)-γ-carbethoxypentamethinecyanine iodide, blue-green crystals, m. 253°, with a sensitivity extending to 7200 A. with a maximum at 6900 A.; III and 2,3,3-trimethyl-3H-pseudoindole-MeI gave bis-2-(1,3,3-trimethylindolenine)-γ-carbethoxypentamethinecyanine iodide, dark green-blue crystals, m. 207°; III and 2-methylbenzothiazole 2-hydroxyethiodide (XI) (in this and subsequent examples the condensation was effected in Ac2O with Et3N) gave bis-2-[3-(2-acetoxyethyl)benzothiazole]-γ-carbethoxypentamethinecyanine iodide, dark blue solid, m. 110°; III and 2-methyl-5-chlorobenzothiazole 2-hydroxyethiodide gave bis-2-[3-(2-acetoxyethyl)-5-chlorobenzothiazole]-γ-carbethoxypentamethinecyanine iodide, dark green crystals, m. 154°; VII and XI gave bis-2-[3-(2-acetoxyethyl)benzothiazole] - γ - propylcarboxypentamethinecyanine iodide, dark blue-green crystals, m. 150°, with a weak band of sensitivity extending to 6900 A. with a maximum at 6500 A.; VII and quinaldine 2-hydroxyethiodide gave bis-2-[1-(2-acetoxyethyl)quinoline] - γ - propylcarboxypentamethinecyanine iodide, dark blue-green crystals, m. 124°; VIII and IX gave bis - 2 - (3- ethylbenzothiazole) - γ - cyanopentamethinecyanine iodide, dark brown crystals with a green reflex, m. 268°, with a weak band of sensitivity extending to 6600 A. with a maximum at 6350 A.; VIII and 3-ethylrhodanine gave α,γ-bis-5-(3-ethyl-2-thio-4-ketotetrahydrothiazole) - β - cyanopropene, blue crystals with a bright reflex, m. 220°; and VIII and XI gave bis-2-[3-(2-acetoxyethyl)benzothiazole] - γ - cyanopentamethinecyanine iodide, dark blue crystals, m. 243°. 2-Methylbenzoselenazole 19.6 and p-MeC6H4SO3Me 18.6 parts were fused at 100° for 3 hrs., III 10 in Ac2O 200 parts was added, the whole boiled 0.5 hr., and excess Et3N added, to give bis-2-(3-ethylbenzoselenazole) - γ - carbethoxypentamethinecyanine iodide, green crystals, m. 150°.

IT 857959-72-9P, 5-Thiazolidineacrylonitrile, 3-ethyl-α-[(3-ethyl-4-oxo-2-thioxo-5-thiazolidinyl)methyl]-4-oxo-2-thioxo-
RL: PREP (Preparation)
(preparation of)

RN 857959-72-9 CA

CN 5-Thiazolidinepropanenitrile, 3-ethyl-α-[(3-ethyl-4-oxo-2-thioxo-5-

thiazolidinyl)methylene]-4-oxo-2-thioxo- (CA INDEX NAME)



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     FILE 'REGISTRY' ENTERED AT 10:25:02 ON 31 JUL 2009
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L2              1 S L1 SAM
L3             15 S L1 FULL
L4                STRUCTURE UPLOADED
L5           1351 S L4 FULL

     FILE 'CA' ENTERED AT 10:28:16 ON 31 JUL 2009
L6             59 S L5

=>

=>
Executing the logoff script...


=> LOG H

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 10:29:01 ON 31 JUL 2009
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